1961
6-12
Pt. 1

plains ANTHROPOLOGIST

JOURNAL OF THE PLAINS CONFERENCE

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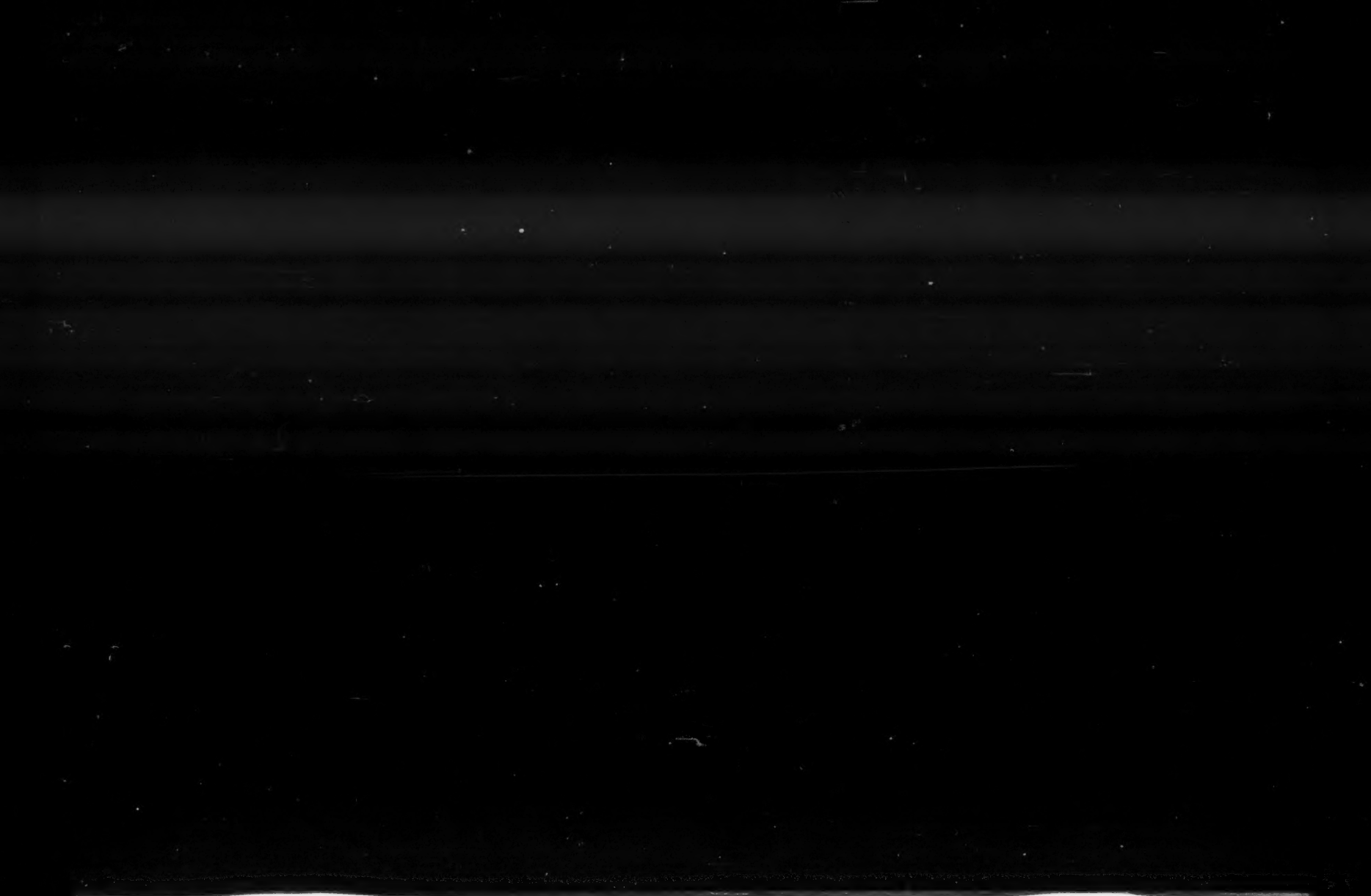

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ANTHROPOLOGIST
JOURNAL OF THE PLAINS CONFERENCE

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November 23 - 26, 1960

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ANTHROPOLOGIST

Volume 6 May, 1961 Number 12

FIELD REPORTS

Robert L. Stephenson, Chairman

1960 PROGRESS REPORT, MISSOURI RIVER PROJECT

Robert L. Stephenson

Another season of archaeological field work in the Missouri River Basin has come and gone. There are 48 sites in the Oahe Reservoir and some 32 sites in the Big Bend Reservoir which must be investigated to obtain a minimum sample in 2 of the largest reservoirs on the Missouri River, The Oahe and Big Bend. In Oahe some major sites were lost to flooding this year before they could be investigated; only a few sites will remain available by the summer of 1962. In Big Bend by 1964 only a few sites at the highest elevations will be accessible for excavation.

There is, however, no prospect of sufficient funds being available to accomplish the required salvage job with necessary completeness. This summer, for instance, there were 8 full-scale excavation crews working in cooperation with the National Park Service and 5 non-River Basin field crews working in other areas.

In addition to field work the Missouri River Chronology program has continued to operate. Dr. Paul B. Sears of Yale University has verified pollen from at least one profile. Eleven radiocarbon dates have been added by the University of Michigan and Dr. Harry E. Weakly of the U. S. Department of Agriculture has continued to prepare dendrochronology material for study. Alan H. Coogan has continued his studies of the geologic-climatic aspects of the terrace situated sites in the Big Bend Reservoir.

Smithsonian Institution
Lincoln, Nebraska

1960 FIELDWORK IN ALBERTA

Richard G. Forbis

Field parties from the Glenbow Foundation carried out surveys and excavations in southern Alberta during 1960. The focal point was the Cluny Earthlodge Village, some 65 miles east of Calgary. This site consists of 11 oval pits, about 14 feet across the long axis, surrounded by a semicircular trench ending on a cut bank of the Bow River. Substantial cultural remains were recovered, including pottery in the generalized Upper Missouri tradition. The pits, originally thought to be remains of earthlodges, did not yield evidence of supports for roofs; and may actually have been bastions for the palisade fence, which runs about 20 feet inside the trench and parallel to it. The Cluny site is some 400 miles northwest of the nearest known earthlodge (the Hagen) site of the Upper Missouri region.

Other projects of the Glenbow Foundation include: recording of pictographs at Writing-on-Stone Park, on the Milk River; survey of 170 miles of pipeline right-of-way along the foothills of the Rockies; extensive testing of the Coulee View site near Lethbridge, where side-notched points have been found in association with McKean points; excavation of a fragmentary projectile point embedded in a large bison scapula found in sands underlying a layer of volcanic ash dated at 6,600 years ago; survey and excavation of shallow sites in passes of the Rocky Mountains; and discovery of 2 undisturbed rock cairns along the Bow and South Saskatchewan Rivers.

Glenbow Foundation
Calgary, Alberta

1960 FIELDWORK AT THE HUFF SITE, NORTH DAKOTA

W. Raymond Wood

The last season of field work anticipated at the Huff site, 32MO11, Oahe Reservoir, North Dakota, was terminated in September of 1960. Huff is a long-rectangular village containing at least 102 houses surrounded by a dry moat and bastioned palisade, and provides an important link in the chronology of the upper Oahe Reservoir area. Working within a 100 foot strip adjacent to the Missouri River, a State Historical Society of North Dakota - National Park Service party accomplished a major part of its 3 objectives: to define details of (1) the dwelling structures (2) the fortification system, and (3) burial customs. Eight dwelling units were excavated, 200 feet of the palisade were explored, and 3 human burials recovered. An unexpected find was the delineation of a 4-post, squarish house resembling House 3 at Arzberger. This house, and a few alien sherds from elsewhere in the site, suggests contact with sites further downstream in the Oahe Reservoir. The presence of dentalium further suggests the possibility of contacts with the Northwest Coast. Important data on the physical anthropology of the inhabitants of Huff is now being compiled by William Bass III.

University of Oregon
Eugene, Oregon

1960 EXCAVATIONS AT THE GANT, NO HEART, AND REE HEIGHTS SITES

Wesley R. Hurt

During the month of June, 1960, the W. H. Over Museum with a grant from the State University of South Dakota Research Fund made a survey of archaeological sites that will be destroyed by the construction of the Interstate highway between Sturgis and Spearfish, South Dakota. Approximately 30 sites were found in this area of the Northern Black Hills. In addition, 2 weeks were spent excavating the Gant site, 39ME9, between Sturgis and Bear Butte. Although this site lies out of the right-away, it is rapidly being destroyed by wind and water erosion. This site consists of a group of hearths filled with fire-cracked rocks that lie on top of a hill. It is assigned to the McKean complex on the basis of McKean points, although examples of Duncan and Hanna points were found in the same levels. Artifacts typical of the "Forager" complex included manos and metates, end and side scrapers, pulping planes, and choppers. No animal or bird bones were found.*

A 6 weeks project co-sponsored by the W. H. Over Museum and the National Park Service excavated at the No Heart Creek site, 39AR2, old Armstrong County, South Dakota. This was a fortified village at the mouth of No Heart Creek and the Missouri River containing ceramics and artifacts typical of the La Roche Focus. A trench surrounded the village on 3 sides, with the river side of the terrace open. However, a wood palisade completely enclosed the site. Excavations revealed a loop-shaped bastion and 2 funnel-shaped entryways. One circular earth lodge and the portions of 2 others were uncovered.

The W. H. Over Museum sponsored an excavation project at the Ree Heights bison kill, 39HD3, during September 23-25, 1960. This site lies in a ravine on the north side of a long terminal moraine in Hand County, South Dakota. Evidently the Indians had, over the course of many centuries, driven bison from the grasslands to the north into the main ravine where they had slaughtered them as they attempted to escape out of small side ravines. Below the area of killings was a butchering site marked by large bones and choppers. Further up the gully was a cooking area containing bone fragments, charcoal and hearths, sherds, and many small stone artifacts such as knives and scrapers. Sherds were confined to the upper 18 inches and are related to those from the Over Focus, although finely incised examples of an unnamed type were common. The hearths and bison bones in the cooking area extended to the depth of 11 feet.

University of South Dakota
Vermillion, South Dakota

* Recently, a carbon sample from the Gant site was dated by Isotopes, Inc., at 4,130 plus or minus 130 years ago.

EXCAVATIONS AT CERTAIN LA ROCHE AND THOMAS RIGGS SITES IN THE BIG BEND AND OAHE RESERVOIRS, 1960.

Warren W. Caldwell

During the spring of 1960, the Missouri Basin Project of the Smithsonian Institution planned an intensive program of testing and excavation of a number of inadequately known sites in the area of former Armstrong County (now Dewey) in the middle reaches of the Oahe Reservoir, north-central South Dakota. With the flooding of the lower terraces in progress, renewed investigations were essential. Unfortunately, heavy rains at the beginning of the season made the region inaccessible, forcing a temporary diversion southward to Medicine Creek (Lyman County) in the Big Bend Reservoir. Here, excavations were concentrated in 2 closely related earth-lodge villages, the Medicine Creek site (39LM222), and the Cable site (39LM224). Portions of 4 houses were excavated and intensive tests made in midden and interhouse areas. Three of the houses were circular, with a 4 center post foundation, widely spaced corner posts, and a long entry passage opening toward the northeast. The remaining house, lying beneath one of the circular structures at 39LM222, was of indeterminate shape. Pottery, excepting a single Arzberger-like rim, was characteristically of the Iona type as defined at the Spain site.

During July, ameliorating weather made it possible to begin operations in the Oahe Reservoir but with the season well advanced, it was considered most practical to exploit a single site of importance rather than to adhere to the initial plan. Site 39AR201, an earth-lodge village with rectangular houses arranged in rows or streets, was chosen for excavation since it was clearly defined and appeared to represent an early occupation. A remarkably heavy overburden limited excavation to a single house but fortunately the artifact sample was large and distinctive. Copper, dentalium, and other objects of shell and bone were present. Pottery was predominately of the Thomas Riggs grouping.

Later in the season, still another early site, 39AR210, was found adjacent to 39AR201. Unfortunately, it had been temporarily submerged by the Oahe pool so that only inconclusive testing was possible. A defensive ditch was evident but in all other respects the site resembles 39AR-201.

Smithsonian Institution
Lincoln, Nebraska

HISTORIC SITES IN THE OAHE AND BIG BEND RESERVOIR AREAS

Hubert G. Smith

Three historic sites in the Big Bend Oahe Reservoir, Fort Sully, Fort Bennett, and Fort George, were investigated during the 1960 field season.

At Fort George, located some 25 miles above Pierre, South Dakota overlooking the Missouri River, the largest collection of well preserved artifacts ever to come from a controlled excavation of this type were recovered. Especially noteworthy was a large array of glassware including art glass and hundreds of bottles, Oriental earthenware, numerous objects of metal, and leather goods.

At Fort Bennett, where the site was comprised of a military post and an Indian Agency, a small collection of historical specimens were made but collection was hindered by the previous flooding of the site. Excavation was undertaken during a temporary recession of the water.

At Fort George located on the Upper Big Bend Reservoir, the brief testing undertaken disclosed logs, clay chinking, and mixed occupational debris of white and Indian culture of the 1940 period.

In addition to these excavations near the construction area of the Big Bend Dam, 6 burials in wooden coffins were uncovered. The grave goods suggest Indians or mixed bloods from the nearby Fort Thompson Agency.

Smithsonian Institution
Lincoln, Nebraska

EXCAVATIONS AT FOUR MOUND SITES IN THE OAHE RESERVOIRS

Robert W. Neuman

During the summer of 1960, a field

party of the Smithsonian Institution, Missouri Basin Project, excavated some low, dome-shaped, earthen mounds in the Dakotas.

At the Swift Bird site (39DW233), in Dewey County, South Dakota, 1 of 2 tumuli was tested. A primary burial, in an extended, supine position, was found lying on the mound floor. Artifacts associated with the burial consist of a Thunderbird shell pendant, dentalium and bone beads and a few worked stone flakes. Additional work is planned for the site.

Three of the 4 mounds at the Boundary Mound site (32SI1), Sioux County, North Dakota, were excavated. The mounds had large, centrally located, sub-floor burial pits which contained the remains of partially decomposed, secondary human burials. All ages and both sexes are represented. Some of the human bones were painted red. Artifacts recovered from the pits were generally associated with a single individual. The specimens include triangular projectile points, some with side notches, stone knives, bi-pointed drills, an obsidian drill, a catlinite atlatl weight, cigar-shaped stone and bone objects, bone awls, pendants and tubular-shaped beads, ground and painted beaver, dog, and human mandibles, a worked human palate, antler objects, a bear tooth pendant, shell pendants, clay balls, red, green and black pigments, and grass matting.

The burial pits were covered with timbers. Large quantities of bison bone, including numerous skulls and a completely articulated skeleton, were lying on the mound floor. Secondary human burials may be present on the mound floor or within the mound fill.

One of 3 mounds at site 32MO207, Morton County, North Dakota, was tested. A poorly preserved secondary human burial of 1 individual was found in the mound fill. A few fragmented bison bones were the only associated specimens.

At the Schmidt site (32MO20), also in Morton County, 1 of the 8 mounds was tested and a portion of a log-covered, sub-floor burial pit was exposed. A secondary human burial, characterized by the partial remains of 1 individual, was recovered from the pit. Bison bones were found lying on the mound floor. No artifacts were recovered from the excavations.

Submitted with the permission of the Secretary of the Smithsonian Institution.

Smithsonian Institution
Lincoln, Nebraska

1960 SUMMER EXCAVATIONS AT THE LEAVENWORTH SITE, 39CO9

Ward J. Weakly

During the summer of 1960, Dr. Preston Holder, with Ward F. Weakly and Richard E. Jensen, field superivsors, and a crew of students from the University of Nebraska excavated at the Leavenworth site. This site, a large double village occupied by the Arikara from 1800 to 1833 is located on the Missouri River in Carson County 7 miles north of Mobridge, South Dakota.

Excavations were carried on in 12 locations within the site. These included 2 midden areas, 4 tests for midden areas, and 2 tests for fortifications; also excavated were 4 circular houses approximately 50 feet in diameter. Three of these houses were located in the lower or downstream village and 1 in the upper village.

Three outstanding features were noted: the multiple reconstructions of the central firepits within the houses, fired basins along the edge of the terrace on which the villages are located, and raised altars in 2 of the houses. Also investigated was a small trench in which posts had been set. This feature is probably the remains of fortifications at the site.

The artifact assemblage collected is relatively large, consisting of approximately 7000 specimens. The pottery appears to be primarily Stanley ware; however, analysis is still under way and may reveal further wares. Flaked stone artifacts were present in a relatively small percentage, while metal was in relative abundance. Bison bone constituted a large portion of the specimens recovered, and a large percentage of this bone appears to be from young animals.

On the basis of this work, further extensive exploration and careful investigation of selected houses is planned for the future.

Smithsonian Institution
Lincoln, Nebraska

REPORT ON THE OLSEN-CHUBBUCK SITE, COLORADO

Joe Ben Wheat

During the summer of 1960, a University of Colorado Museum field party completed the excavation of the Olsen-Chubbuck Site near Cheyenne Wells, Colorado. This site, a Paleo-Indian bison kill, consisted of a bone bed contained in an ancient arroyo. From the work of 1958 and 1960, the remains of approximately 165 bison, tentatively identified as B. occidentalis, have been recovered. These represent the spoils of a single kill. Some of the animals had been speared, but many others had been trampled to death in their attempt to escape across the arroyo, which presumably formed one segment of a "surround".

Geological estimates, based on the weathering of the sediments deposited in the arroyo subsequent to the kill, place the age at circa 7,000 years ago. This estimate is reinforced by the paleontological evidence and that of the artifacts. Five projectile points, a large flake knife, and a slender, double-pointed bone implement found during the 1960 season bring to a total of 40 the artifacts definitely associated with the kill and the subsequent butchering. Thirty-one points or point fragments have now been found. The types associated with the kill are Scottsbluff, Eden, Plainview (or Milnesand), and several which are intermediate in type between Eden and Scottsbluff, having the general shape of the Eden point but the size and flaking characteristics of the Scottsbluff.

The kill took place in late spring or early summer, as indicated by the presence of young calves as well as mature cows and bulls. Many data on butchering customs and techniques were secured. These indicate that the tongue, hump, ribs, and legs were choice cuts. Evidence shows that neck meat was taken, possibly for drying. Bones were commonly cracked for marrow. Horns were apparently broken off, perhaps for use as containers. Use of the foot as an adze or hatchet in butchering is indicated. The presence of scrapers suggests that some skins were also taken. There was some evidence to suggest an assembly-line method of processing the hind and fore quarters, indicated by successive heaps of pelvis halves, femora, and tibiae, and of scapulae, humeri, radii, and ulnae.

University of Colorado
Boulder, Colorado

CURRENT DEVELOPMENTS IN PLAINS DENDROCHRONOLOGY

Harry E. Weakly

As a part of the River Basin Surveys' chronology program, work is now in progress upon a master chart to be used in attempting to date as many as possible of the sites included in the salvage program in South Dakota. This work has progressed to the extent that a well-substantiated chart has been prepared which extends from the present to 1586 A.D. Material now at hand will probably extend this back to as much as 1400 A.D. Work on the actual dating of sites will commence very shortly.

University of Nebraska
Lincoln, Nebraska

A PRELIMINARY SURVEY OF HUMAN SKELETAL MATERIAL FROM ARCHAEOLOGICAL SITES IN NEBRASKA

William M. Bass

A review and summary of the human skeletal material occurring in archaeological sites in Nebraska was reported.

Approximately 3/4 of the measurements and observations of the material were taken during the summer of 1960. This portion of research was supported by a grant from the Research Committee of the University of Nebraska. About 1/4 of the data was obtained in the summer of 1959 as a part of a larger research project to gather data on human skeletal material from all of the Central Plains States. This initial survey was supported by the River Basin Surveys of the Smithsonian Institution and through a grant from the Anthropology Department of the University of Pennsylvania.

A total of 1572 individuals was recorded

from 66 sites. Subdivision as to sex is as follows: males, 520; females, 379; children (birth to 18 years), 492; sex unknown, 181. The skeletal material from 42 sites is located in the laboratory of Anthropology, University of Nebraska; from 13 sites at the Nebraska State Historical Society and from 11 sites at the U. S. National Museum, Smithsonian Institution, Washington, D.C.

The list of the number of individuals from archaeological sites in the State of Nebraska is a preliminary list only. Individuals counted range in completeness from a fragment of a single bone to complete skeletons in perfect condition.

Measurements and observations were taken on all cranial and post-cranial material possible. Cases of pathology, healed fractures, copper and red ocher staining, and other anomalies were recorded.

Some sites may be represented by more individuals than were reported. This may be true for 2 reasons, (1) There were a few cases in which the field notes listed fragmentary individuals discarded in the field. These were not counted in this survey; (2) Material from many of the ossuaries was too fragmentary to determine either age or sex.

The final analysis of this material, which is now underway, may result in a different total number (either higher or lower) for some of the sites, because no individual bone counts are included in this survey.

University of Kansas
Lawrence, Kansas

THE LABORATORY EXCAVATION OF A WOODLAND TYPE OSSUARY

William M. Bass

The Ashland Ossuary was uncovered in 1950 by power equipment which was being used to remove gravel from the bluffs on the west side of the Platt River near the city of Ashland, Cass County, Nebraska. The human bones covered an area of approximately 4 x 4 feet. A plaster jacket was applied around the area of bone and the entire ossuary was removed to the Laboratory of Anthropology, University of Nebraska.

In the spring semester of 1960, with the help of 2 undergraduate female assistants, I excavated the ossuary. The ossuary was gridded into 1 foot squares and excavation proceeded at a rate of 18 "girl" hours a week. I supervised and assisted when the need arose. Approximately 200 hours (about 25 eight hour days) were required to adequately excavate the area.

We followed the policy of working in small areas (1 foot squares), beginning with each individual bone and increasing the excavation to include adjacent articulated and/or associated bones or until the identity of the bone or individual we began with was lost. This was extremely difficult and impossible in many cases due to the close association and haphazard arrangement of the bones. Each bone was worked with the care usually given an entire burial in the field.

Fragmentary long bones were cleaned and measured in situ. In many cases it would not have been possible to restore the bone after removal as it was crushed in hundreds of fragments when found.

Cranial remains account for the largest number of individuals. On the basis of skulls or skull fragments 25 individuals are represented, of which 17 are subadult and 8 are adult (5 infants, 11 children, 1 adolescent, 4 males, 1 female and 3 sex unknown). The presence of only 1 skull with an articulated mandible (the larger post cranial bones being those most often found) strongly suggests the possibility of secondary burial. There are 18 instances, however, in which definite anatomical articulations occur. No one complete primary burial occurred but there is enough evidence to suggest a major amount of burial in the flesh.

Thirty-four small rectangular shells with holes drilled in 2 corners were encountered.

University of Kansas
Lawrence, Kansas

SOUTHERN PLAINS, SOUTHWEST AND TEXAS PAPERS

E. Mott Davis, Chairman

ARCHAEOLOGICAL SEQUENCE AT THE FERRELL'S BRIDGE RESERVOIR, NORTHEASTERN TEXAS

E. M. Davis

At 3 Caddoan mound sites on Cypress Creek in northeastern Texas, investigated jointly by the University of Texas and the U.S. National Park Service as part of the Inter-Agency Archaeological Salvage Program, the low mounds are the result of successive building, destruction, and covering of ceremonial structures. Many of the artifact traits represented at these sites, constitute what is called here the Whelan Complex, are the same as those of the Titus Focus, a late Caddoan (Fulton Aspect) burial complex of the same area. There are significant differences, however, notably in that the Whelan Complex includes Pease Brushed-Incised pottery, which is absent in the Titus Focus, and lacks a few Titus Focus traits such as Cass Appliqued pottery.

No sites containing both Titus Focus and Whelan Complex components have been found, and the internal typological evidence does not suggest any particular chronological relationship between the two. It is highly unlikely that the Titus Focus and the Whelan Complex represent different geographical or functional facets of the same prehistoric culture.

Webb's recently published analysis of his finds at the Belcher Mound, about fifty miles east of the Whelan Complex sites, has outlined for the first time a detailed developmental sequence within late Caddoan materials. Notable at Belcher--for our purposes--is the history of Pease Brushed-Incised pottery, which decreases in popularity during the early part of late Caddoan times and eventually disappears altogether. If the Belcher situation is valid for the Whelan Complex area, and there is no reason to believe it is not, then the Whelan Complex is earlier than, and probably ancestral to, the Titus Focus.

University of Texas
Austin, Texas

PROGRESS AT THE HARLING SITE, A PLATFORM MOUND ON THE RED RIVER NORTHEAST OF DALLAS

Curtis D. Tunnell & E. M. Davis

This paper reports work under the auspices of the American Philosophical Society and the University of Texas in November, 1960, at the Harling Mound (formerly called the Morgan Mound), Fannin County, Texas, in the Red River valley. This is a rectangular, flat-topped mound situated in prairie country, about 100 miles west of the previously known distribution of such mounds. The work, devoted to sampling about 1/10 of the mound by trenching, proved the artificial nature of the mound but revealed no clearly separate stages of construction, no post molds or other evidences of structures, no burials, and hardly any artifacts. There is no village site in the immediate vicinity, although both Gibson Aspect and Fulton Aspect sites are to be found in this area; the well-known Sanders site is about five miles to the southeast. The age and function of the Harling Mound are still unknown, but laboratory analysis of the field data may yet produce some positive information.

University of Texas
Austin, Texas

SUMMER FIELDWORK OF THE OKLAHOMA ARCHAEOLOGICAL SALVAGE PROJECT

James B. Shaeffer

Summer field work of the Oklahoma Archaeological Salvage Project consisted of some surveys in the Oklahoma highway system, all of which proved negative, and 4 weeks of excavation on the Fort Sill Military reservation supported by Park Service funds. This latter was a follow-up of a survey conducted under Park Service auspices in cooperation with the U. S. Army Artillery and Guided Missile Center Museum. During that time about 117 sites were located and a number of these recommended for excavation. This summer a few of these sites were tested.

Unfortunately, it was found that during the interval since the survey and the time when additional funds were available, some of the best sites near the post had been destroyed by construction and engineering projects. On the other hand, 1 significant site was uncovered by such activity.

The most productive site, one along East Cache Creek about 2 miles southwest of the main gate, was located in a grove of large oaks along the stream. Site features consisted of half a house circle (30 feet in diameter) having posts at 2-3 foot intervals and several hearths, one of which was 3 feet deep. Artifacts were recovered from within the house circle and immediately adjacent to its exterior. These consisted of small triangular and side-notched points, a few dart points, turtle-back manos, a slab metate fragment, punctated and grit tempered plainware sherds. A quantity of buffalo bone, some shell, and assorted flint and rock debris were recovered.

About 2 1/2 miles north on Medicine Creek just before its confluence with East Cache Creek an entirely different type site was uncovered during borrow pit operations of the Post Engineers. Here, although no features except hearths could be located because of the depth of the overburned (about 5 feet) and previous destruction by machinery, sufficient material was found to indicate an occupation of an earlier period. Buffalo bone, for instance, was entirely lacking at this site. While deer predominated, it was augmented by box turtle, rodent, fish and mussel shell remains. Pottery sherds were cordmarked or plain with gravel and bone temper. Manos were quite abundant but few scrapers or points were found. Some house wattle was found indicating a wattle and daub-thatch type of dwelling construction but the ground plan of the latter remained unknown.

Several other small ubiquitous sites were tested. One along the north boundary of the reservation, to the east of Blue Beaver Creek, resulted in the recovery of some handstones, a chopper, a knife, and several Gary type dart points all of which in material and typology were reminiscent of a local phase of the Lawton Aspect. Along the north and south banks of Medicine Creek in the vicinity of the bluffs several large stone features (possibly house floors) were uncovered which suggested disturbed anthropomorphic shapes with a central hearth. Below Medicine Bluff a 15 foot house circle devoid of associated artifacts was excavated within an occupation area from which triangular and side notched points were recovered.

University of Oklahoma
Norman, Oklahoma

THE 1960 EXCAVATIONS AT THE McLEMORE SITE, Wa-5, WESTERN OKLAHOMA

Robert E. Bell

The 10th annual field school in anthropology was spent in conducting excavations at the McLemore site, Wa-5, in Washita County, Oklahoma. This site lies geographically between the Washita River Focus on the east and the Custer Focus on the west; hence, it was selected to provide information regarding the relationship between these 2 Southern Plains manifestations. The site is located on a small tributary of the Washita River, Cobb Creek, not far from the town of Colony, Oklahoma.

Excavations were carried out over a period of 8 weeks with a student crew of 8 persons under the direction of Robert E. Bell. Actual excavations were conducted at 3 sections of the site designated Areas

A, B and C.

Area A produced a number of cache pits which had been used for refuse, as well as an occasional post hole.

Area B exposed the outlines of a rectangular house pattern as well as a number of cache pits. The house pattern represents a square house structure with wall posts along the sides. The interior was marked by occasional post holes, but no specific roof support pattern is evident. The cutting of cache pits within the house area, apparently both before and after the house was in use, has partly confused the general post hole pattern. The house lacked an interior fireplace and entrance way.

Area C represents the cemetery burial area for the site. A total of 48 primary burials were excavated, the vast majority being represented by single individuals. The skeletons were typically placed with the head toward the east, in a flexed or semi-flexed position, and occasionally were accompanied by a grave offering. Burial goods included small pottery vessels (including 1 human effigy vessel), stone elbow pipes, flint knives, bone awls or pins, shell beads, mussel shells or other miscellaneous objects.

The artifact inventory includes triangular and side-notched arrow points, flint scrapers, flint knives (Harahey type), stone celts, stone elbow pipes, grooved stone abraiders, manos, metates, bone awls, bone shaft wrenches, bison scapula hoes, bison tibia digging stick tips, notched ribs, clay figurines, pottery and other items. The total assemblage resembles the Washita River Focus and represents a typical hunting-gardening economy such as is present throughout the Southern Plains.

New information regarding house patterns and burial customs is especially welcome as this cultural phase has been very poorly known previously.

University of Oklahoma
Norman, Oklahoma

ANTHONY: A KANSAS-OKLAHOMA BORDER SITE

Marvin R. Munsell

The Anthony site in south central Kansas displays a basic relationship to the complexes falling under the Central Plains Phase in Nebraska and northern Kansas, but moderate influences from contemporary manifestations in Oklahoma are present along with Middle Mississippi traits. As a result of having to deal with rather limited ceramic collections, the author suggests that more attention be directed toward the microscopic analysis of all collections so that smaller collections lacking large numbers of rims and scant evidence of decoration may be compared on this basis.

The University of Kansas
Lawrence, Kansas

CHAIN MAIL AND OTHER EXOTIC MATERIALS FROM SOUTH CENTRAL KANSAS

Kenneth and Ina Terry

During May, 1960 a large amount of chain mail was recovered from an unexcavated site, located along Cow Creek in Rice County, Kansas. Surface materials from this site exhibits the main characteristics of the Great Bend Aspect. Other than in amount, the chain mail specimen equates with little or no difference to earlier small fragmentary finds at 2 other sites of the same aspect. Southwestern relationships are well substantiated by the occurrence of the following exotic materials: pipes of the "cloud blower" variety, turquoise, obsidian and basalt artifacts, Puebloan painted sherds dating from the last half of the 15th century to the middle of the 17th century, micaceous pottery sherds and a relatively large percent of artifacts manufactured from "Alibates" flint from the Amarillo, Texas area. Trade relations with possible further influence is indicative from the south and southeast by Fulton Aspect engraved sherds and coiled, shell tempered wares, also novaculite from Arkansas. Raw materials imports from the northeast are: Siouan quartzite from the glacial erratic in northeastern Kansas and catlinite from Minnesota.

Kansas Archaeological Society
Kansas

EXCAVATIONS IN THE WILSON RESERVOIR AREA, RUSSELL COUNTY, KANSAS

Thomas A. Witty

During the summer of 1960, the Kansas State Historical Society, performed archaeological salvage work in the Wilson Reservoir area of Russell County, Kansas. The work was carried out under a contract with the National Park Service.

Four sites were excavated. The first, 14LC301, was a single lodge floor with associated pits. In outline the house was roughly square, with straight sides and rounded corners. Rim sherds recovered show strong similarities to Riley Cord-roughened with the addition of bowl forms. The second site, 14LC302, was a small rock shelter. Material recovered here indicates a series of occupations from the Woodland into the Central Plains Phase. A buried camp site on the Saline Valley floor, 14RU302, was the third site worked. Two hearth levels with associated midden areas were located. Artifacts indicated affiliation with Central Plains Phase. The fourth, 14RU303, was a camp site atop a terrace overlooking the Saline Valley. Aksarben-like rim sherds were found just under the grass roots. Below these was a smooth, plain, slightly flared rimed ware. With the latter were random post-molds and shallow pits usually arranged in pairs.

Kansas State Historical Society
Topeka, Kansas

FIELD REPORT ON A SHELTER IN NORTHWEST ARKANSAS

Charles W. McNair

Moores Creek site (Arkansas State site number 3WA20) an undisturbed bluff shelter previous to its discovery April 9, 1960, lies on Moores Creek in the Northwest corner of Washington County, Arkansas. Excavations to date have been by the author and Joe C. Parks of Prairie Grove, Arkansas under the direction of the University of Arkansas Museum. Mentionable features excavated to date have been drilled boulders, posts and post molds indicating a structure under the overhang; "altar" of "bench" type fire hearths; decorated potsherds of Osage influence; 3 Afton type projectile points in ceramic levels. Artifacts to date indicate occupation from at least early Archaic to protohistoric or historic time. As yet little excavating has been accomplished in the deeper levels.

Arkansas Archaeological Society
Fayetteville, Arkansas

UNIVERSITY OF MISSOURI FIELD SCHOOL AT VAN METER PARK

Robert T. Bray

The University of Missouri is now operating a permanent archaeological research center and field school in the Van Meter State Park near Miami, Missouri. The operation is in accordance with a reciprocal agreement, in which dual responsibilities are specified, between the University Board of Curators and the State Park Board. Relationships between University personnel and Park officials are specifically advisory and cooperative only --there is no line of command. A long term master plan for orderly development has been prepared in cooperation with the National Park Service, Division of States Cooperation. This plan includes additions to the physical plant, personnel, and scope of operations. The ultimate goal --years hence--is as nearly an ideal operation as possible in archaeological research, education, and public interpretation.

Although the full range of prehistoric cultures is represented in the park and vicinity, the outstanding site is 23SA2, the Missouri Indian village. Here, students receive their elementary field training. Excavations at SA2 in 1960, corroborated a previously established burial pattern of one or multiple, supine, fully extended, individuals placed at random in the village area. A single exception was a semi-flexed individual without burial offerings. Burials typically are accompanied by trade materials of early 18th century French origin. Nine large refuse pits produced most of the cultural material recovered. Typical items were

pottery, small flint scrapers and projectile points, bison scapula hoes, mammal bones; notably bison and deer, fish bones and scales, and some corn, beans, pumpkin seeds, and several kinds of wild seeds. A terminal date of 1729 A.D. has been suggested, which coincides with the abondonment of the nearby French outpost, Fort Orleans. The size of the site, the great amount of refuse, and the large numbers of burials indicate a heavy population, but since most portions of the site show trade goods, a tenure of more than 80 years is open to question.

At the Civil War Battle of Lexington State Park, 3 weeks of exploratory work and excavations resulted in the location and exposure of the remains of a summer kitchen, a slave house, a cistern and root cellar, and a small dwelling. A large number of period artifacts were recovered. Landscape architects are at work on plans for historical reconstructions in connection with the Civil War centennial.

State Parks personnel were furnished to handle visitor interpretation. University personnel, students, and, on some occasions, members of the state archaeological society, assisted in the interpretation. From June through October, about 7000 visitors were registered.

University of Missouri
Columbia, Missouri

MERAMEC ARCHAEOLOGICAL SURVEY

Dale R. Henning

Archaeological survey of the Meramec River valley was undertaken as a cooperative venture between the Lucy Wortham James Foundation and the University of Missouri. Personnel involved were Dale R. Henning, Director, Museum of Anthropology, Rolland E. Pangborn, Leslie Cahill, and R. Bruce McMillan, Research Assistants, University of Missouri. The area of concentration was in the Meramec valley; particularly near the confluence of the Bourbeuse and Meramec rivers and in the valleys of both.

The purpose of the survey was to determine the intensity of Middle Mississippian influence upon indigenous cultures of the area; geographically not greatly removed from the Cahokia center. Further, as very little archaeological research has been done in the area, it was necessary to determine the nature of the then indigenous cultures and their predecessors.

In the course of survey, approximately 50 open (village, mound or petroglyph) sites were located, recorded and collections made therefrom. Four shelters were tested, the test trenches excavated to sterile soil or rock bottom. Impressions previous to laboratory analysis indicate a continuum from a late preceramic group to groups with some contact with or influence from Middle Mississippian groups. Village sites apparently ranged in time from a pre-ceramic period to those exhibiting remains of peoples who utilized vast quantities of both shell and limestone-tempered wares. Some villages had apparently been occupied over a great period of time by peoples with a variety of cultural affiliations. Of great interest to those involved in the research were large dark stains (up to 50 feet in diameter) found on several fields on the Bourbeuse valley. Such stains were reported from the Meramec valley, but not seen. No test trenching of the stains could be attempted as all were under cultivation. Scattered indications of a Paleo-Indian occupation were noted, primarily in the collections of local enthusiasts, many of whom had 1 or 2 fluted projectiles in their possession. Pictograph and petroglyph sites are rather common in the area intensively surveyed, but could not be related to any cultural unit.

The survey, lasting a total of 2 months, was completely successful in that a great amount of information and material was gathered. The material recovered will be invaluable in the interpretation of excavations performed in the Meramec Springs area under a previous cooperative agreement between the 2 institutions. Further, a solid groundwork has been laid for future specific research should additional funds become available.

University of Missouri
Columbia, Missouri

PRELIMINARY EXCAVATIONS AT THE ALBERTSON SITE, NO. 1. A NORTHWEST ARKANSAS BLUFF SHELTER

Donald R. Dickson

A bluff shelter in northwest Arkansas less than a mile from the Oklahoma state line was investigated during the spring of 1960. This shelter is located above a stream in the vicinity of a cultivated field which showed occupation during the Archaic and Gibson periods.

The shelter which is now back from and higher than the stream channel is well protected by vegetation. As a result, "pothunting" at this site appears to be at a minimum. Excavation was carried out in 6 inch levels and all dirt was both trowelled and screened. Consequently, few artifacts have been missed and the stratigraphy is very clear.

Three stratas of habitation are visible. The top stratum, 1 foot thick, attributed to the Neosho Focus, is composed of a dark brown rocky soil containing flint artifacts such as Frenso, Langtry, Gary stemmed points, punctated sherds and animal bones. Contained in this layer was a partially disturbed or secondary burial associated with grave goods consisting of split animal bones, a hammerstone, points, a bone awl, shell beads and large pottery sherds.

Stratum 2 beginning ab 'it 12 inches down was from 4 to 11 inches deep. It consisted of a fine yellowish soil containing considerable ash, charcoal and a number of split animal bones. In addition to the animal bones which were mostly deer, there were some fish and rodent bone, mussel shells, charred acorn, hickory nuts, Gary type dart points, small notched points, scrapers, and abrading stones. The features of this level were several small fire pits.

Stratum 1, a medium brown ash, began at the 18 inch level and extended down about 18 inches further. Found in this level were Woodland type points, Woodland sherds, drills, awls and flaking tools. Small fire pits were also common as well as quantities of charred acorns, hickory nuts, and walnuts. The features of this level were some small cairns of rock and a disturbed or secondary burial associated with a "killed" mano, a Langtry point and a flaking tool. This assemblage of artifacts suggest the Gibson Aspect of the Woodland Horizon.

Oklahoma Anthropological Society
Bartlesville, Oklahoma

plains QUOTES

Reprinted from: Southwestern Lore
Vol. XXVI, No. 4, March, 1961
John Greenway, Editor

CART-USING INDIANS OF THE PLAINS

Omer C. Stewart

"The fact that the Plains Ojibwa exploited the buffalo here (Northern Plains) by means of two-wheeled carts has been overlooked. It has come as a shock to a number of anthropologists to realize that one group of American Indians used a two-wheeled wooden cart, instead of a travois, to transport their tents, their dried meat and hides. The wooden cart of the Plains Ojibwa was, like the horse, acquired from Europeans in pre-columbian times, and the two aspects of culture were together used to replace the birch-bark canoe when the Ojibwa left the lakes and rivers and adopted the life of buffalo hunter".

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"In 1855, Father Belcourt was missionary at Pemina and wrote at length regarding a peace treaty between the Sioux and Plains Ojibwa at which the two peoples agreed to an inter-tribal boundary. This followed the defeat of the Sioux by the Ojibwa. The secret of the Ojibwa success over larger numbers of Sioux was the two-wheeled carts arranged in a circle to form a fortified corral and strong point".

GENERAL PLAINS AREA

John L. Champe, Chairman

ACTIVITIES IN THE KASINGER BLUFF RESERVOIR

Charles M. Keller

During the 1960 field season the University of Missouri, as a co-operating agency in the Inter-Agency Archaeological Salvage Program, conducted test excavations in the Kasinger Bluff Reservoir in southwest Missouri. The reservoir area is located on the Sac, Osage, and Pomme de Terre Rivers and their tributaries in Benton, Henry, St. Clair, Vernon, and Hickory counties. Eight sites in St. Clair, Henry and Benton counties were tested.

23HE110 is an open site located on Tebo Creek in Henry county. Although the site has yielded much material to local collectors in past years, more recently, the site has been scoured clean of cultural deposit by the flooding stream.

23BE108 is a small cave located in Benton county on Hogles Creek. Split and burned bone and flecks of charcoal were recovered from the deposit, which ran to some 5 feet in depth, but the only artifacts recovered were 2 plain, shell tempered sherds and 1 small triangular arrow point.

23BE107 is a small cave located on the Little Pomme de Terre River. The interior of the cave had been cleaned out to the point that only an inch or two of soil remained over the bedrock. The dump in front of the cave had been disturbed also. In the dump some plain clay tempered sherds were found associated with modern crockery and .22 cal. cartridge cases.

23BE112 is a rock cairn located on a hill top above the Little Pomme de Terra River. The cairn had been the object of activity by local collectors but it was hoped that a portion might remain undisturbed. While this did not prove to be the case a small corner-notched arrow point and a small triangular arrow point were recovered from the disturbed fill.

23SR114 is a small cave in St. Clair county. Although plain grit tempered and limestone tempered sherds, and a shallow side-notched projectile point were recovered the deposit also contained almost equal numbers of nails, harness rings and other metal objects.

23SR121 is a small rock shelter in St. Clair county on a branch of Salt Creek. Plain clay tempered body sherds, 1 flaring rim, rolled lip, clay tempered rim-sherd, small corner-notched arrow points, larger corner-notched points, and a contracting-stemmed projectile point were present.

23SR122 is a large rock shelter located in St. Clair county on a branch of Salt Creek. In the upper levels of the shelter small triangular arrow points were present with shell tempered pottery which resembles the Osage pottery from Vernon in the western branch of the Reservoir. Below this plain clay tempered pottery and shallow side-notched and corner-notched points were found, and underlying this were larger corner-notched projectile points

23SR103 is a small rock shelter in St. Clair county. Shell tempered, clay tempered, and crushed limestone tempered sherds were present as were small arrow points, shallow side-notched points, and a large double basal-notched point.

University of Missouri
Columbia, Missouri

GUN FLINT MANUFACTURE IN THE CHER VALLEY, FRANCE

Carlyle S. Smith

A visit to former gun flint manufacturing centers in the Cher Valley between Tours and Bourges in France resulted in the collection of specimens of flint, iron tools, and information from informants. The industry had survived into the 1920's. Flakes of black flint and finished black gun flints were found along with the usual blond specimens. At present it is impossible to distinguish the black flint, and some of gun flints made from it, from English flints. This paper supplements the translation of two 18th Century French reports on the industry to be published by the Missouri Archaeological Society in 1961.

University of Kansas
Lawrence, Kansas

THE WHITE BULL MANUSCRIPT

James H. Howard

In 1959 the library of the University of North Dakota, Grand Forks, acquired a rather unique manuscript written in the Dakota language by Chief Joseph White Bull, a member of the Minneconjou subband of the Teton Dakota. The manuscript, prepared by White Bull in 1930-31, contains valuable information on Teton Traditional history, a Teton Dakota winter count, and the personal war record of White Bull. This last item is of particular interest since White Bull has been advanced as the slayer of George A. Custer by his biographer, Stanley Vestal. White Bull's war record consists of pictographs of the various war exploits supplemented by Dakota texts. The White Bull manuscript was translated by James Howard in 1960 and is under analysis at the University of North Dakota Laboratory of Anthropology at the present time.

University of North Dakota
Grand Fork, North Dakota

INCISED PLAINS POTTERY SHOULDER PATTERNS: A TENTATIVE STYLISTIC AND HISTORICAL ANALYSIS

W. Raymond Wood

A stylistic analysis of the incised patterns executed on the shoulders of Central and Northern Plains village groups yields 2 broad pattern types. The configurations of these types in time and space conform to what is now known of the development of the historic socio-linguistic groups. The spread of a distinctive triangular pattern, the Alternating Triangle, from its inception along the eastern boundary of the Central Plains provides a test of the hypothesis that incised Plains art derives in large part from stimuli from Mississippian groups to the east. Subsequent history of the incised patterns is that of a strong collective tradition overriding earlier patterns in the Northern Plains. This incised tradition is related to historic data on skin and robe painting and to the concept of a general style of the area, and to fundamental problems in the field of art.

University of Oregon
Eugene, Oregon

THE BROTHER-OF-ALL DOCUMENT, 1888

Robert W. Neuman

The Dawes Bill, submitted to Congress in 1886, was a desideratum for the division of the Great Sioux Reservation of the Dakotas. In order to accomplish this division the assent of the Sioux, from the various agencies, had to be obtained in the form of signed documents. In 1888 the Sioux Commission visited the Crow Creek Agency and succeeded in acquiring only 120 signatures. The Brother-of-All document was one of that number.

The 1888 Sioux Commission failed miserably in their task. However, another commission was created and finally, in February of 1890, the Dawes Act was signed by President Harrison. This Act brought into establishment the 6 separate reservations of Standing Rock, Cheyenne River, Crow Creek, Lower Brûle, Rosebud, and

Pine Ridge.

*Submitted with the permission of the Secretary of the Smithsonian Institution.

Smithsonian Institution
Lincoln, Nebraska

AKSARBEN: A DISCUSSION

John L. Champe

For 25 years the terms Nebraska Aspect and Upper Republican Aspect have created difficulties for the classification of archaeological complexes in the Middle Ceramic period in the Central Plains. A two-fold analysis of this situation is therefore proposed. First, it is necessary to state the nature of these difficulties and second to present certain revisions which will salvage as much in concept and terminology from these existing classifications with their established values as is possible.

The discussion can be summarized with regard to the first problem by stating that 2 classificatory concepts, an Upper Republican Aspect and a Nebraska Aspect, have never been demonstrated as valid categories within the Midwestern Taxonomic System. There is good reason to regard them as the kind of archaeological units defined as "phases". Second, a review of the evidence indicates that an Upper Republican Focus and a Nebraska Focus may well be the solution for taxonomical difficulties arising from the older formulations. Third, a single aspect, currently known as the Aksarben Aspect, should be substituted as the category which comprises the focii and components of the abandoned Upper Republican and Nebraska Aspect.

University of Nebraska
Lincoln, Nebraska

PANEL DISCUSSION

A panel discussion followed the presentation of the paper. This discussion was recorded on tape and is available from the Laboratory of Anthropology, University of Nebraska, Lincoln, Nebraska. The discussants were:

John O. Brew
Harvard University
Cambridge, Mass.

Wesley R. Hurt
University of South Dakota
Vermillion, South Dakota

Carlyle S. Smith
University of Kansas
Lawrence, Kansas

Albert C. Spaulding
National Science Foundation
Washington, D.C.

Robert L. Stephenson
Smithsonian Institution
Lincoln, Nebraska

Waldo R. Wedel
Smithsonian Institution
Washington, D.C.

PLAINS ETHNOLOGY, THE FRENCH AND SPANISH ENTRADA

James H. Howard, Chairman

SANTA DOMINGO OF EL CUARTELAGO

John Champe

An abstract of this paper was not available at time of publication.

University of Nebraska
Lincoln, Nebraska

SPANISH ENTRADAS AND IDENTITY OF INDIAN TRIBES ON THE PLAINS

Al Shroeder

An abstract of this paper was not available at time of publication but the author states that further discussion of this subject will be contained in a paper to be published at a later date in the Conference Journal.

U. S. National Park Service
Santa Fe, New Mexico

VOLUNTEER PAPERS

Richard G. Forbis, Chairman

A "PLAINS TYPE" EARLY MAN SITE IN ECUADOR

William J. Mayer-Oakes

Early in 1960, the Stovall Museum carried out a pilot archaeological project in Highland Ecuador, which has firmly established the presence of a complex assemblage of early stone tools at the site near Quito, known as "El Inga". Preliminary reports have been published (Mayer-Oakes and Bell, 1960; Bell, 1960). Studies of the materials are going ahead. Early indications of North American technological relationships (fluted points) have been supplemented by typological factors, suggesting the presence of a distinctive South American horizon (Magellanic I) characterized by a unique projectile point style (Fells Cave I, stem point). Obsidian dates obtained from the site suggest antiquity of the order of 10,000 years, but all indications point to the presence of several early occupations.

Intensive field work on a large scale is proposed for 1961 and the following years.

University of Oklahoma
Norman, Oklahoma

HOPEWELL MOUNDS AT KAMPSVILLE, ILLINOIS
(The Klunk Mound Group)

Gregory Perino

In April of 1960 the Thomas Gilcrease Foundation, Tulsa, Oklahoma, excavated 5 classic Hopewell mounds that were situated with others on the bluffs of the

Illinois River and over the town of Kampsville.

The largest, Mound 1, consisted of 3 features, 2 of which were primary mounds each containing a log tomb and burials, and a huge log tomb that had been erected between them. The largest log tomb contained 2 re-articulated burials assembled from bones of 4 individuals.

Mound 2 was similarly constructed as the primary mounds in mound 1 with the attendant satellite burials about its periphery, but here the intrusive addition of a log tomb is interesting. The structure had been erected on a prepared floor notched out of the side of Mound 2 and the ridge. This tomb contained the remains of an infant dressed in a pearl studded robe that had 4 bear canines serving as fasteners. At the child's head was a large fabric and leather wrapped copper axe, at its feet was a large fabric wrapped adz.

Mound 5 contained a large log covered subfloor pit as its central feature. Extended satellite burials occurred about the central feature.

Mound 6 contained a log tomb. The remains of 2 males had been placed on the roof and ramps. Artifacts in the tomb consisted of 10 narrow bone scarified teeth, a drilled rib needle, a small rectangle of limestone, and an unusual projectile point. Extended satellite burials occurred about the tomb.

Between Mounds 6 and 7 was a huge crematory 11 feet in diameter. It had been constructed of huge limestone slabs by the Bluff Culture peoples who also had interred some of their charred remains in pits placed into the side of Mound 6. The crematory contained many charred human bones, a cord-marked bowl, a clay pipe, and a limestone ring 2 inches in diameter.

Mound 7 consisted of a Hopewell addition to an earlier Late Archaic mound. The central Hopewell feature consisted of a large subfloor pit excavated through the Archaic mound to subsoil. It contained fragmentary human bones and a fine limestone platform pipe. Extended satellite Hopewell burials were accompanied by Hopewell Zoned, and plain vessels, ribbon flake knives, galena, and turkey bone awls.

The Late Archaic features consisted of 7 slab lined crematories filled with charred human bone. They had been constructed on the original surface and in the mound. The mound was composed of large limestone slabs and carbon filled soil. Other burials were flexed and interred in shallow circular pits covered with limestone slabs. Artifacts found with both the cremated and flexed burials consisted of; pearl beads, rolled copper beads, conch shell beads, calcite and stone beads, perforated mussel shell ornaments, shell and copper fishhooks, stemmed and barbed projectile points, charred fabric, and plummets. Fourteen of these latter were recovered. They are made of various types of hematite, limestone and granite. Carbon was found in quantities in the crematories and has been submitted to the dating laboratory at the University of Michigan. A carbon date of 800 B.C. is expected.

Gilcrease Foundation
Tulsa, Oklahoma

A DISCUSSION OF ANTIQUITY LAWS

Charles R. McGimsey III

An antiquity act must be so designed that it serves effectively to protect and preserve archaeological materials and data. It also must be constitutional, enforceable, and desirable (that is, the ultimate and best protection is education, thus legislation must facilitate and complement this education). Acceptance of 2 precepts is essential for any antiquities act to be legal or effective: (1) that anthropological and archaeological information is of vital public concern and that, therefore, preservation and protection of this information is in the public welfare and a proper responsibility of the state; (2) that the police powers of the state can be exercised to safeguard the public welfare (without invoking health and safety).

An antiquity act based on the above conditions might include the following provisions: STATE LAND - (1) all artifacts are the property of the state with provision for permits for investigation and excavation; (2) such sites and artifacts shall not be knowingly and needlessly molested; (3) all artifacts to be deposited with a designated agency, provided that agency has

authority to redispose of same to other institutions on a scientific basis; (4) state land containing valuable sites shall be reserved from sale until investigated; (5) extremely valuable sites may be taken by eminent domain. PRIVATE LAND - (1) owners shall not act in such a manner that archaeological information is knowingly and needlessly lost through excavation without adequate public record; (2) it is declared an act of trespass to remove artifacts from land without the owners permission. GENERAL - (1) individuals are requested and state agencies and employees are required to notify a designated state agency concerning archaeological finds; (2) state archaeologists have the right of entry onto all land to carry out their duty, provided this does not extend to excavation without landowners permission; (3) defraud, misrepresentation, and forgery prohibited; (4) malicious damage to sites or artifacts prohibited; (5) violations declared misdemeanors and penalties set forth; (6) a severability clause.

University of Arkansas
Fayetteville, Arkansas

1960 FIELD WORK IN BEAVER RESERVOIR, ARKANSAS

Hester A. Davis

Large quantities of normally perishable material have been recovered in bluff shelters in northwest Arkansas. However, little scientific work has been done in the area since that of M. R. Harrington and S. C. Dellinger in the 1920's and 1930's. In 1965 the flooding of Beaver Reservoir will cover approximately 28,000 acres in the heart of this bluff shelter country, including at least 45 of the known shelters. A preliminary survey located approximately 60 open sites. In the summer of 1960 the Archaeological Field Session of the University of Arkansas, in cooperation with the National Park Service, made test excavations for 6 weeks in the Beaver Reservoir area.

The summer's work had 3 objectives: (1) to test sites around the dam which were in danger of immediate destruction; (2) to test open sites; (3) to test a shelter which had been previously excavated to see if further excavation would be profitable.

Six open sites were tested. Open sites had not been recorded in the area previous to the spring survey, and the ones tested were found to be relatively shallow, though with some indications of stratigraphy.

The shelter was tested by means of a trench which revealed the outline of the previous excavations to a depth of approximately 30 inches, but which produced stone tools to a depth of over 7 feet. Preliminary examination of the stone artifacts from the shelter and the open sites indicates a degree of similarity.

In the next 4 years we hope to be able to clear up some of the haze which now covers the prehistoric cultures of the Ozark area.

University of Arkansas
Fayetteville, Arkansas

CORPUS, LOCUS, TEMPUS

John Champe

An abstract was not received for this paper.

University of Nebraska
Lincoln, Nebraska

JOHN LELAND CHAMPE: A FOUNDER OF THE PLAINS CONFERENCE

Marjorie Lambert

Editor's Note: This year the 18th Plains Conference, at the time of the traditional Thanksgiving banquet honored John L. Champe, who was introduced to the Conference as one of its founders, promoters and ardent supporters, by Dr. John O. Brew, Director of the Peabody Museum of Archaeology and Ethnology of Harvard University. Dr. Brew exemplified these observations by a number of instances of personal recollection. Following these remarks, Dr. Champe was given a prolonged standing ovation by the Conference members.

The following summary prepared by Mrs. Lambert has been added, to provide a formal summary of the very great contribution made by John L. Champe to Plains Anthropology through his unswerving support of the idea of an annual conference of anthropologists interested in the Plains area.

That John Leland Champe, in the mid-1930's, chose "to take the plunge" and abandon a successful career in the insurance business, was most fortunate. Because of this event, American anthropology has been all the richer for some 20 odd years. During this period John Champe has unceasingly worked toward a better understanding of Central Plains archaeology and ethnohistory. Furthermore, his name has become synonymous with the annual Plains Conference.

A native of Nebraska, Champe earned his undergraduate degrees from the University of Nebraska. During World War I he served as a lieutenant in the army. On December 27th, 1960, he and Flavia celebrated their 36th wedding anniversary. He founded the University of Nebraska's Laboratory of Anthropology, serving as its Director since the beginning. At the same University he was instructor in anthropology from 1940 - 47; assistant professor, 1947-50; associate professor from 1950-52; and has been Chairman of the Department of Anthropology from 1953 until November 1st, 1960. John's recent retirement from the latter post means that this ever-busy scientist will now have dearly earned freedom from many administrative duties, thus giving him time to write. Credited with being one of the best teachers in the field of anthropology, it is also fortunate that John Champe plans to continue with a number of academic courses in his chosen field.

It would perhaps be difficult for many individuals to understand why a successful insurance executive elected to become a career anthropologist, a notoriously ill-paid profession by many comparisons. Indeed a number of his best friends, anthropologists included, told him he was crazy. It was through his friendship with Dr. W. Duncan Strong, then with the University of Nebraska, that John Champe's interest in Plains archaeology took its final shape. Strong may be included among those who advised him against becoming an anthropologist. Nonetheless, these 2 have been the best of friends over the years, including the period when John went to Columbia University to carry on graduate work with Strong and others in the anthropology department. And so it was that he received his Ph.D. in anthropology in 1946.

John Champe has been intimately associated with at least 13 of the 18 Plains Conferences. Indeed, he can be credited with being the archivist of this organization. Because he recognized the impor-

tance of preserving the history of each Conference, he made the first tape recordings of their meetings, and has continued with this painstaking task throughout the years. Today there is no man better fitted to write the history of the Plains Conferences than John Champe. It is the sincere hope of his many colleagues that he can now find time to undertake this important project.

John Champe can also be described as an archaeological ambassador between the Plains and the Southwest, for it was he, who a few years ago, suggested that Southwesternists be invited to participate in the Plains Conferences. He, in turn has attended the Pecos Conferences for 2 years, making our first tape recordings.

It is not possible to here enumerate all that John Champe stands for in American anthropology, but we should note especially his contributions to Plains archaeology and ethnohistory, and for his continued efforts toward making the Plains Conference an outstanding event. Those of us who know him best would, without hesitation, describe him as a loyal friend; secondly, as a man who has dedicated himself to the science of anthropology; and, thirdly, as a scholar who has unselfishly given encouragement and guidance to all alike.

It is, therefore, fitting that the 18th Plains Conference has given special and well-deserved recognition to John Champe, who has given so much to all of us.

Museum of New Mexico
Santa Fe, New Mexico
December, 1960

LIST OF PUBLICATIONS BY JOHN L. CHAMPE

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plains QUOTES

Reprinted from: Museum News
Vol. 22, No. 1, Jan. 1961
Wesley R. Hurt, Editor

AN EXTANT WINNEBAGO PIROGUE IN THE SIOUX CITY PUBLIC MUSEUM

Eugene Fugle

"Mr. Carl Wellhausen of Sioux City, a former resident of the Thurston County area, informed the writer that he believed the dugout once belonged to the late Mr. John S. Lemmon who lived west of Winnebago, Nebraska, along Middle Creek. The writer interviewed Mr. George Lemmon, the latter's son, of Pender, Nebraska. Mr. Lemmon said that the dugout was made in approximately 1890, when he was about ten years of age. According to Mr. Lemmon, the canoe was ordered from the Winnebago Indians by John Lemmon for use as a feed and water trough for calves. John Lemmon went to Winnebago town, paid $2.00 for the newly made dugout and hauled it home with a team and wagon. The dugout was never on the water. Knife marks on the edge of the dugout were produced by a corn knife which chopped corn for calves to eat. Mr. William Campbell, part Omaha Indian, purchased the dugout at one time from Henry Lemmon, a brother of George. Mr. Campbell buried the canoe in a sandbar near Winnebago, Nebraska, and then dug it up for publicity purposes. The dugout was displayed at celebrations such as Pender's anniversary celebration. The sign on the dugout at the 1935 celebration obviously was faked and the fact that the dugout was "recently discovered in the sands of the river bed" (Vestal, Stanley, 1945, p. 335) was apparently an excellent job of fakery!"

THE THREAT TO NUBIA

John O. Brew

Abstract

The building of a high dam above the first cataract of the Nile near Aswan has presented anthropologists with a salvage problem of the first magnitude. Thousands of archaeological sites will be inundated ranging in time from the Paleolithic to early Christian (Coptic) periods. Since this area is one of the cradles of mankind, this presents a challenge to the entire civilized world.

Discussed are the present international solutions to this problem through the United Nations, Economic, Social, and Cultural Organization, the new and liberal excavation policies of the Egyptian and Nubian governments, and the establishment of various international committees organized to implement these policies.

Work already under way of these committees is summarized. Both the current and planned work of the 10 countries now involved are listed. The problems and policies concerned with the removal and preservation of temples too large to remove are discussed.

The proposal to build a new and higher dam above the First Cataract of the Nile, near Aswan has presented us with a salvage problem of the first magnitude. The high water level behind the present dam is 121 meters. The high dam will raise this level to 182 meters. The resulting lake will flood permanently the inhabited areas of both modern and ancient Nubia, in Egypt and in the Sudan. Thousands of archaeological sites will be inundated, ranging in time from the Paleolithic to early Christian (Coptic) periods.

The salvage of Nubia is much more than a local problem. It is a challenge to the entire civilized world. The Nile has always been a major thoroughfare. The finds of fossil men in Africa now establish the central and southern reaches of that continent as at least one of the cradles of mankind. Until the invention of ocean-going ships, the only feasible route between those areas and the Mediterranean-Middle Eastern world was the Nile.

Later, wherever agriculture and the domestication of animals originated, it was the Valley of the Nile, along with the Tigris-Euphrates and the Indus, which fostered the development of the Neolithic.

This was followed in the Nile by the great cultural explosion of the Pharaonic Dynasties upon which so much of what we call "high civilization" was based. Finally, the Nile played its part in the early history of Christianity and after a long struggle many of its temples were converted to Christian churches.

All of this is depicted in the sites which are to be flooded and it is the business of all of us to do what we can to see that this important record is not lost.

A number of things have already been done toward the solution of the problem. The response has been truly encouraging although much remains to be accomplished and we shall need the help of all of you to insure success. The steps which have been taken are as follows: In May, 1959, the UNESCO International Committee on Monuments, Artistic and Historic Sites and Archaeological Excavations presented a resolution to the Director-General of UNESCO recommending that international action be taken to achieve the salvage of the Nubian sites.

The Director-General then sent a mission to Egypt and with the cooperation of His Excellency Sarwat Okasha, Minister of Culture, an ad hoc committee of experts was set up which surveyed the sites in Egyptian Nubia and made recommendations as to procedure. This committee was presented with a manifesto from the Egyptian government which set the pattern for the archaeological salvage. Incidentally, it also prepared the stage for the revival of Egyptology which, during the last 3 decades had degenerated into a mere study of epigraphy because of the impossibility under existing regulations of the exportation of any archaeological specimens from Egypt.

The new proposals are truly liberal. Any institution excavating in Nubia is guaranteed "at least 50%" of the materials excavated, with the usual protective clause excepting objects of extraordinary importance from the division. In addition to this, because it was recognized that everyone would not wish to do extensive excavations in Nubia, it is stated that an institution or government which makes appreciative contributions to the salvage in Nubia would be given permission to excavate in other parts of Egypt. This provision effectively reopens Egyptology as an active archaeological field.

Furthermore, realizing that many art museums which would not wish to conduct excavations might wish to obtain Egyptian artifacts for display, it is stipulated that in return for contributions toward Nubian salvage, the extensive stores of specimens in Egypt are to be made available for distribution. A final incentive for contributions to the cost of the salvage is the statement that a number of the temples and tombs in Nubia are available for transportation to foreign countries under guarantee of suitable installation in their new homes. The government of the Sudan, where restrictions have not been so stringent, reiterated its principal of 50-50 distribution of finds and, similarly, urged archaeologists to participate in the salvage.

As a result of its survey, the ad hoc committee submitted a report to the Director-General of UNESCO on the basis of which an International Appeal was issued on March 8, 1960, for a campaign to safeguard and salvage the monuments of Nubia.

Under UNESCO auspices 2 international committees have been established: a Committee of Patrons under the chairmanship of His Majesty King Gustaf VI Adolf of Sweden, himself a practicing archaeologist currently excavating at the Etruscan site of Tarquinia in Italy (Mrs. Franklin D. Roosevelt is the American member of this Committee); and an International Action Committee whose business it is to organize the details of the campaign. Getting closer to our interests in the matter, 2 consultative committees of archaeological experts have been set up to advise the 2 governments concerned, Egypt and the Sudan.

Under this international umbrella, national committees have been organized in all countries interested in participating in the salvage. The United States Committee is a large one including our leading Egyptologists and museum people and such outstanding prehistorians as Frank H. H. Roberts, Emil Haury, and Clement Meighan. The officers are John A. Wilson, Director of the Oriental Institute of the University of Chicago, Executive Secretary; Froelich Rainey, Director of the University Museum at Philadelphia and William Stephenson Smith, Curator of the Egyptian Department of the Museum of Fine Arts, Boston, Executive Vice-Chairman; Mr. Spyros P. Skouras, President, 20th Century-Fox Film Company, Vice-Chairman for Communications Media; and myself as Chairman.

Under these various committees and auspices, a considerable amount of work is already underway. Mr. William Y. Adams, who has had experience in salvage archaeology in our own Upper Colorado project under Dr. Edward B. Danson, Director of the Museum of Northern Arizona, has completed one season of excavation and survey in the Sudan, and is now embarked on his second season. Dr. Walter B. Emery, Professor of Egyptology at University College, London, is excavating the large Pharaonic fortress of Buhen, also in the Sudan. Emery was the director of archaeological salvage for the Department of Antiquities of Egypt when the height of the present Aswan Dam was raised in the 1920's and knows more about the area than any living Egyptologist. Under his direction the Egypt Exploration

Society of England will excavate the fortress and cemetery of Qasr Ibrim in Egyptian Nubia.

Other sites and areas have been assigned to various countries and institutions and work already has been started on these projects or will start during this fall and winter. Dr. Meighan will conduct a survey, for the National Science Foundation, of the Palaeolithic and Neolithic sites on the terraces of the Nile in both Egypt and the Sudan. He is over there now, and his report will form the basis of operations by American Universities under the auspices of the Society for American Archaeology, supported by funds granted by the National Science Foundation.

Two American institutions are already committed to excavations in Pharaonic sites. The Oriental Institute of the University of Chicago, in collaboration with the Swiss Institute in Cairo, will carry out excavations on both banks of the Nile in Egyptian Nubia between Dehmit and Kalabsha. A joint expedition of Yale and Pennsylvania will conduct a survey on the east bank from Abusimbel to the Sudan border and excavate the site of Gebel Ada.

Many other countries are already at work. The French Institute for Oriental Studies, in collaboration with the Louvre Museum and the University of Strasbourg will excavate the large site of Wadi es Seboua. The area of Wadi Allaqui and Dakka is being excavated by the U.S.S.R. The necropolis of Gebel has been assigned to the Federal Republic of Germany; the Sayala sector to Austria; the region between Korosko and Qasr Ibrim to the Netherlands; Ikmindi to Milan University; Sabayura and Sheikh Da'ud to Milan and Spain; and Tomas and Dehmit to the Museum at Turin, Italy.

For the prehistoric sites, in addition to our National Science Foundation survey already mentioned, surveys and excavations will be conducted by the Egypt Exploration Society of England; the Lerici Institute of Milan, Italy; the Centre Francaise de la Recherche Scientifique and the Czechoslovak Institute of Egyptology and India.

With the active and competent assistance of the Antiquities Department of Egypt it is apparent that the program of salvage excavations will be achieved. Our part in this, in addition to the institutions already committed, will be to pick up the prehistoric surveys and excavations recommended by Dr. Meighan's expedition now in the field.

In addition to the excavations, it should be noted that all of the standing temples, tombs, and monuments are being recorded by epigraphists and photogrammetric photographs by teams from the Documentation and Study Center for the History of the Art and Civilization of Ancient Egypt established by UNESCO and the Egyptian Government at Cairo. The work of the Center is being assisted by archaeologists, architects and photographers from France, Germany, Belgium, the United States, Czechoslovakia, and Mexico. In addition the Institut Geographique National in Paris has provided a photogrammetric map of the entire Nile Valley.

In the Sudan, in addition to the extensive English excavations at Buhen and Adam's work for the local antiquities service, the following projects are in being or scheduled: the Commission Francaise des Fouilles will excavate the temple and cemeteries of Aksha; the Polish Institute of Egyptology at Cairo will do Faras West; the Oriental Institute of Chicago will dig the fortress, churches and cemeteries of Semna East; Spain will take on the Meroitic cemetery at Argin; the Scandinavian countries are planning a joint survey of the right bank of the Nile between Faras East and Gemai; the German Archaeological Institute at Cairo and the Belgian government are scheduling excavations in Pharaonic sites; and Columbia University is organizing for work on the prehistoric. Yale-Pennsylvania will also excavate in the Sudan.

Another important aspect of the work is the removal of temples, either to an appropriate site away from the lake or for export abroad. Twenty temples and tombs have been placed in this category and 2 of them, Taffeh and Debod, were dismantled by the Egyptian government during the summer of 1960 and stored at Aswan. Five of these temples have already been designated as available for removal from Egypt in return for foreign financial assistance.

The cost of removing temples, especially the larger ones like Kalabsha, will be considerable but the most expensive operations of all will be the protection in situ of

the 2 rock-out temples of Abu Simbel and the extraordinarily fine buildings on the Island of Philae. These are the outstanding monuments in the area and they are too large to move.

The problem presented by Philae is the least difficult of the two. Situated between the old and the new dam, it will not be subject to the extremes of high water which the other sites will suffer, nor will the mean water level be so great. A preliminary plan submitted by engineers sent to Egypt by the Netherlands government provides a series of dikes which will recreate the original Island of Philae in an artificial lake at a constant water level. Early in November we learned that the Netherlands Government will contribute their share of funds for this work.

The 2 great temples built by Ramses the Second at Abu Simbel can be protected properly only by the construction of a large earth dam. This will be a major undertaking. A French engineering firm is now preparing cost estimates. According to construction schedules on the High Dam, the dam at Abu Simbel must be completed by 1964.

The protection Abu Simbel and Philae and the removal of the larger temples to new sites are tasks beyond the scope of private philanthropy or the budgets of universities and museums. The cooperation of other governments would seem to be the only feasible solution. Belgium has already made an appropriation for this purpose and Germany, the Netherlands and Yugoslavia have indicated their intention to do so. An amendment to the Mutual Security Act adopted by the Congress of the United States in May, 1960, requests the President to submit on or before March 1, 1961, recommendations concerning the "participation by the United States in an internationally financed program which would utilize foreign currencies available to the United States to preserve the great cultural monuments of the Upper Nile". The reference here is to the so-called "counterpart funds", Egyptian pounds belonging to the United States which can be spent only in Egypt. At the appropriate time the United States Committee will request the support of all people interested in the project for the use of some of our counterpart funds in Egypt for this purpose.

It is to be hoped that the United States Government will take this step, not only to join with other nations in the effort to preserve a cultural heritage which belongs to us all, but also to demonstrate to the world that our foreign aid program has a broader base than simply our military and commercial advantage.

Harvard University
Cambridge, Massachusetts

plains QUOTES

Reprinted from: Arid Lands Research Newsletter American Association for the Advancement of Science No. 5, 22 December 1960 - Tucson, Arizona Richard B. Woodbury, Editor

NEWMAP OF THE CANADIAN PRARIES

The first land use map of the Canadian praries on an eight miles to the inch scale is expected to be published in 1961 as part of an extensive land use mapping program by the Geographical Branch of Canada's Department of Mines and Technical Surveys. N. L. Nicholson, Branch Director, reports the sheet is to include "a small portion of the Canadian semi-arid area".

CONFERENCE REPORTS

CHAIRMAN'S REPORT - 18th PLAINS CONFERENCE - 1960

For the first time since 1940, the annual Plains Conference was held at Norman, Oklahoma, during the now traditional Thanksgiving weekend, November 24-26, 1960. Our host institution, the University of Oklahoma, made available to the conference its facilities at the Extension Center on the North Campus and at the Stovall Museum on the Main Campus. Most of the delegates stayed at the Extension Center which was very convenient to the main meeting room.

On Wednesday evening preceding the conference an informal welcome party, hosted by Bob Bell, Bill Mayer-Oakes, and Jim Shaeffer, was held in the Boomer Room of the Lockett Hotel in downtown Norman. This pleasant get-together set the pattern for the extra-curricular sessions which continued during the coffee breaks and on other occasions throughout the meeting. In fact, the stimulus of such informal sessions is among the most valuable contributions of any conference.

Registration took place Thursday morning, together with a viewing of the numerous collections of artifacts and other data brought to the meeting by several attendees. There was also a display of publications of a number of the institutions represented at the conference.

A pre-business meeting occupied the latter half of the morning, at which an agenda was set for the regular business meeting held on Saturday.

The regular conference program got under way at 1 p.m. Thursday, beginning with a Field Reports session chaired by Dr. Robert L. Stephenson. Subsequent sessions were chaired by Drs. E. Mott Davis (Southern Plains, Southwest, and Texas papers); John L. Champe (Central Plains papers, Panel Discussion of Aksarben Aspect); James H. Howard (Plains Ethnology, The French and Spanish Entradas); and Richard G. Forbis (Volunteer papers). No further discussion of this aspect of the conference need be given here, since the abstracts in full are given elsewhere in this issue.

The annual banquet was held in the ballroom at the Lockett Hotel on Thanksgiving evening. This was preceded by a cocktail party, copiously enjoyed by the assembled group. Following the banquet, Dr. John L. Champe, one of the founding fathers of the Plains Conference, was given a surprise (to him) recognition speech. Dr. J. O. Brew carried this off in his inimitable fashion, and then presented the evening program, an illustrated lecture on the archaeological salvage program behind the high dam at Aswan, Nubia. As usual, this was a well attended function.

At noon on Friday there were two special luncheons, one for the Oklahoma Anthropological Society, with Dr. Sherman P. Lawton presiding; and another for the Plains Anthropologist Editorial Staff.

Friday evening there was an Open House at the Stovall Museum, where a special exhibit on recent finds in Ecuador was enjoyed by many of the conferees. A special panel discussion program, "Future Tasks for Anthropology in the Plains," was moderated by Mr. Savoie Lottinville of the University of Oklahoma Press. Refreshments were followed by a showing of the movie, "The Living Stone", an explanation of stone carving by the Eskimo.

The business meeting was held after lunch on Saturday, having been moved for-

ward from 3:15 p.m. so that a number of delegates who had to leave early could attend. The first order of business was the selection of the next meeting place. After some discussion, the invitation tendered by Mr. Marvin Tong, Director of the newly established Museum of the Great Plains, Lawton, Oklahoma, to hold the next meeting there, was accepted by the conference. The Nominating Committee, consisting of Drs. Waldo Wedel, Chairman; Robert L. Stephenson, and Wesley R. Hurt, then reported. Mr. Marvin Tong was nominated to be Conference Chairman and was elected by acclamation. The report of the Resolutions Committee, consisting of Drs. Sherman Lawton, Chairman; Richard Forbis, and Warren Caldwell, was then presented. This delightful document is hereby recommended as a model for future Resolutions Committee reports. Mr. Marvin Tong then presented to the outgoing Conference Chairman a surplus grave marker (not, it is hoped, as a suggestion) from the Apache cemetery at Fort Sill, and made an acceptance speech as the incoming Chairman. This brought to a close the business meeting of the 1960 conference.

With this meeting, the Plains Conference appears to be entering another phase of its development. Heretofore, the central location of Lincoln, and the willingness of our Lincoln colleagues to take on the task of running the conference, has made Lincoln at Thanksgiving a tradition. Now it would seem that a phase of looking at other backyards is in the offing, and with it some new problems are arising. One of these is the matter of having the Chairman from, or near, the host institution in order to achieve smoothly functioning meeting. Another, perhaps more serious, problem is that of deciding the next meeting place. A local delegation, because of its edge in attendance, can always dominate the voting, and could capture the meeting locale, to the detriment of the conference as a whole. If the conference is to reap the benefits this newly mobile phase affords, some way must be found to insure that the conference does, in fact, move from one section of the Plains to another each year, and it is seriously recommended that considerable thought be given during the coming year to some satisfactory mechanism to accomplish this.

Finally, I wish to express my personal gratitude to all those who helped make the conference a success: those who attended and took part in the meeting, the host institution, and especially to Drs. Shaeffer, Bell, and Mayer-Oakes, upon whose shoulders fell the major share of setting up and conducting the meetings.

Joe Ben Wheat
University of Colorado Museum
Boulder, Colorado

REPORT OF THE NOMINATING COMMITTEE

The Resolutions Committee prepared several slates of candidates for the chairmanship of the 19th Plains Conference. These were based upon the geographical locations of the institutions which indicated they wished to be considered as hosts for next year's conference.

Voting by the membership present selected Lawton, Oklahoma as the location of next year's meeting and E. Marvin Tong, Jr., Director of the Museum of the Great Plains, as Chairman of the 19th Plains Conference which is to be held November 30-December 2, 1961.

Waldo R. Wedel, Chairman
Smithsonian Institution
Washington, D.C.

REPORT OF THE RESOLUTION COMMITTEE

Resolved that we hereby express appreciation to members of the Department of Anthropology and the Stovall Museum of the University of Oklahoma for the excellent arrangements provided for this conference: further, that we commend the Chairman of the Conference, Joe Ben Wheat, for the well balanced program and the competence of speakers.

Resolved that we hereby congratulate James Shaeffer on the revival of the Plains Anthropologist, and on the quality of the publication.

Sherman P. Lawton, Chairman
University of Oklahoma
Norman, Oklahoma

REPORT OF CONFERENCE FINANCES

Listed below is a resume of the expenses of the 18th Plains Conference showing the balance from registration fees which were collected.

Income:	
(103 persons paid $1.00 ea.)	$103.00
Expense: (Coffee)	28.00
Balance	$ 75.00

For information purposes it is interesting to note that 125 persons attended the Conference from 41 towns in 16 states and Canada. One hundred persons were served at the banquet at the Lockett Hotel.

F. Lee Hayden, Director
Short Courses & Conference
University of Oklahoma
Norman, Oklahoma

REPORT OF THE CONFERENCE EDITOR

Original Inventory

At the time of assuming the editorship last November from Franklin Fenaga, who had ably completed 7 years as Conference Editor, two of them as editor of the Plains Conference Newsletter and five of them as editor of the Plains Anthropologist, we found the following situation. Financially: there was $127.12 in a saving account derived from paid-up-subscription and $116.00 available from John Champe as unused registration fees, and subsequently, Franklin Fenaga collected an additional $61.00 from subscriptions which came to him during the transitional period of early 1960. Editorially, we had a backlog of 2 full length articles and 3 short articles. Subscription-wise, we had 94 subscriptions of which 38 were institutional. Inventory consisted of 1308 back issues of the Plains Anthropologist, 111 whole volumes of the Plains Conference Newsletter, and 408 separate issues of the newsletter. Subsequently, a price of $1.00 each was placed upon back issues of the Plains Anthropologist and whole volumes of the Newsletter, and $0.25 each on separate issues of the Newsletter making a gross inventory value of $1,621.00.

Organization

The first decision which the incoming editor made was to broaden the editorial responsibility. It was felt (1), that this would relieve him of some time consuming chores, (2), it would give him a "sounding board" for development of editorial policies, (3), provide him with some interested and expert help in evaluating manuscripts, and (4), it would tend to maintain a geographical balance, and (5), it would strengthen topical content. With these criteria in mind, an editorial staff was organized along the lines of the anthropological disciplines with geographical representation given individual consideration. This has proved from the Editor's viewpoint to be the key decision which he has made. The cooperation which he has received from these individuals has given him great satisfaction and materially lightened his editorial chores.

The logical by-product of this staff organization was to departmentalize certain editorial activities. Despite the usual problems of initial coordination, Warren Caldwell and Ed Jelks have done a remarkable job of organizing their responsibilities with dispatch and efficiency. While the projected Museums department did not materialize, Bill Mayer-Oakes only undertook this chore experimentally and at a time when he was just taking over new duties at the Stovall Museum. We intend now to shift responsibilities around. Mayer-Oakes will assist administratively and Wesley Hurt will edit the Museum and Collections section.

The second decision with regard to organization was to work out some formula which would permit the journal to begin publication with the very limited cash assets on hand and hold forth some possibility of continued and regular publication. Quite a few lines of approach were explored in this search and a good deal of time went into it. Taking into consideration costs and the available local resources it was finally decided to change from direct offset with paper plates to photoreduction offset on metal plates. While this format was somewhat more expensive it avoided some problems of reprinting ex-

hausted editions and was a very acceptable format from the viewpoint of libraries and institutions since it resulted in a publication similar in appearance to letterpress, a method which was beyond our present means. Concurrently with the search for this general publication printing method were several subordinate problems. The decisions to use a two column format while it involved somewhat more careful typing, seemed to us to better fit the size of the journal which had been decided upon. The matter of the art-work was turned over to the Assistant Editor, who happened also to be my wife. The uncluttered "modern" look of our present cover results from her experimentation both with letter type and with color. In order to derive the most benefit from the appearance of our photo-reduction it was suggested that we employ an electric typewriter for uniformity of typing. We were very fortunate in being able to make local arrangements which permitted us to acquire such a typewriter under terms which were within our means.

Our final problem which was nagging in the back of our minds all along, turned out to be no problem at all. This was the matter of sufficient manuscript. We had an unexpected windfall in this through the cooperation of one of our editors, Wesley Hurt, who in order to assist the journal in getting off the ground, made arrangements for changing the publication of an article to our journal along with an order for 3000 reprints. Coming as it did when money was short, and a real problem, this was undoubtedly the most single timely financial assistance we had during this critical period. This plus yeoman writing of the Associate Editor, Bob Stephenson, who filled in the record of unreported Plains Conferences. This, together with several more volunteer papers gave us enough quantity to publish our first issue in May.

Subscription Trend

Until the actual publication of our first issue in May, only a single subscription (John M. Roberts) was received during the first 6 months period; 8 others were added during the period May, June, July. But at this point subscriptions began to come in at a regular pace and have been doing so ever since. The credit for this situation goes again to our Associate Editor, Bob Stephenson, who volunteered to head the promotion activity, and who has done an outstanding job. At the present time between the first of August and last of November we have added about 200 subscribers and as of this date (number over 300 subscribers). If our present rate of growth continues, and we are certainly going to try to maintain it, we estimate that we should, at least, double this number by the time of our report next year. Our goal is 1000 subscribers by 1962, and I believe this is very close to a realistic estimate of what we can do. Once we attain this figure, we feel that we will be close to a stabilized situation where expense and income will be balanced at a figure of $2000 a year. Until we reach that plateau, a good percentage of our operating income will have to depend on the sale of back issues which to the present has consisted of half our income. While on the subject of finances, I hesitate to give a formal report at this time since our small bank balance fluctuates widely every time an invoice is presented. As of this date our present bank balance amounts to $974.30. Even though both issues have been paid for, it must be borne in mind that maintenance of this balance will depend upon a continued influx of subscriptions. If our subscription list continues to expand at its present rate, there is also the problem of re-issuing some or all of the Newsletters, as well as several issues of the Plains Anthropologist. So while the larder is full today, that does not mean it will be so tomorrow. In summary of our present publication situation, I would say that financially we are in fair shape. Promotionally, I would say our prospects for the future looks even better than the past. My only real concern is the quantity of incoming manuscripts. I should now like to review this situation briefly as I feel this is a matter of concern not only to the Conference but that it is ultimately the responsibility of each member.

Manuscript Situation

One of the major complaints on record of my two predecessors as Conference Editor, Jesse Jennings and Franklin Fenega, has been the dearth of manuscripts supplied the Editor by Conference members. This is really very strange since we have

many prolific writers among our professional membership. While the situation to date has not yet been such that we have failed to put out a scheduled issue due to the lack of material, we do have to balance things out rather closely and fill in with additional editorial effort. If more manuscript could be counted on we could enlarge the size of the journal and this would be to our advantage both from the standpoint of the contributors who would have less lag between submission and publication of manuscript and from the standpoint of the journal which would attract more subscribers. However, until this minimum flow of manuscript appears to be definitely reversed, the Editors must be conservative in their estimates of manuscript flow and maintain regular publication schedule by limiting the size of the journal. Another aspect of the manuscript problem is proper balance between the anthropological disciplines represented in Plains research. In the past perhaps we have been somewhat overbalanced towards archaeology, but recently we have had more manuscripts from ethnologists than archaeologists. Possibly this reflects the very successful promotional efforts of our consulting editor for Ethnology, Jim Howard, but in any case, I do not feel that this represents the true reflection of the field situation. Also needed are more papers on physical anthropology and linguistics, though in this case their absence is probably a reflection of the decreased studies of this type in the Plains. In concluding this subject, one encouraging facet of the manuscript situation should be mentioned. This is the recent receipt of theoretical articles on various aspects of Plains anthropology. This trend, if it continues, will lead to better content balance, and will draw the interest of the wider circle of professionals and amateurs outside the immediate Plains area.

In light of the present manuscript situation therefore, we urge all members to support the conference by giving first consideration to its journal as an outlet for at least some of their professional writings. There are many members who have faithfully supported the Plains Conference over the years through their attendance and discussion during the meetings, but who nevertheless have never submitted any of their professional work to the Conference journal for publication. It is necessary for the development, not only of the journal, but of the Conference itself that this trend be reversed. The editors can edit, promote, publish and administer, but it is only the contributors who can make the Plains Anthropologist the solid professional journal of good standing which we intend it to be. The contributors who have the most interest and are the most qualified to do this are the members of this conference. It is, therefore, absolutely essential that the editorial staff receive more cooperation from the Conference membership in this matter of manuscript submission. In conclusion, I would say that if we can reverse the present manuscript trend and maintain the present trend in subscription the outlook for the journal is extremely promising for the immediate future.

James B. Shaeffer
University of Oklahoma
Norman, Oklahoma

REGISTRANTS AT THE 18th PLAINS CONFERENCE

ANDERSON, Adrian D. and Mrs. (Museum of Great Plains) 504 Euclid, Lawton, Oklahoma.

BARR, Thomas P., 729 S. W. 35th, Oklahoma City, Oklahoma.

BASE, Dan, Ft. Cobb, Oklahoma

BASS, William M. (University of Kansas) Lawrence, Kansas.

BEAUBEIN, Paul L. (National Park Service) 3127 Chicago Street, Omaha, Nebraska.

BELL, Robert E. and Mrs. (University of Oklahoma) Norman, Oklahoma.

BELL, Curtis A. (Continental Oil Company) Box 795, Oklahoma City, Oklahoma.

BERTHRONG, Ronald J. (University of Oklahoma) Norman, Oklahoma.

BIANCHI, Jo Anna (University of Oklahoma) 1346 Dorchester, Norman, Oklahoma.

BIRKBY, Walter H. (University of Kansas) Lawrence, Kansas.

BRANDON, J. (University of Oklahoma) Norman, Oklahoma.

BRAY, Robert T. (University of Missouri) Columbia, Missouri.

BREW, J. O. (Harvard University) Peabody Museum, Cambridge, Massachusetts.

BRIGHTON, Harold Dale, 615 So. Denver, Tulsa, Oklahoma.

BRUES, Alice (University of Oklahoma Medical School) Oklahoma City, Okla.

BUSSEN, Jerome S. and Mrs. (Kansas Archaeological Association) Wallace, Kansas.

CAHILL, Leslie (University of Missouri) 209-B Stafford Hall, Columbia, Missouri.

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Registration Committee
18th Plains Conference
Norman, Oklahoma

Reprinted from: Museum of the American Indian
News Release
February, 1961

plains QUOTES

INDIAN FILM SALVAGE GRANT ANNOUNCED

"Announcement was made by the Museum of the American Indian, Heye Foundation, of New York City, that the museum has been awarded a $20,000 grant by the National Science Foundation for the purpose of salvaging important motion picture and negative films threatened with loss from aging. According to Dr. Frederick J. Dockstader, director of the museum, many of these old photographs and motion pictures of Indian subjects were made on nitrate-base celluloid, and are now threatened with loss through chemical deterioration. In an effort to preserve these irreplaceable records of early Indian life, the museum is undertaking a special film salvage program to transfer such film to safety stock.

It is anticipated that this emergency project will effectively save for future generations many early motion picture records and photographs of ceremonies, technical processes and scenes of Indian life which have long since disappeared. Once this is completed, these films will be made available by loan to other museums and educational institutions."

ELIAS HOWARD SELLARDS

1875 - 1961

E. H. Sellards, who died at Austin, Texas, on February 4, 1961, at the age of 85, was a versatile and productive scientist who, over a period of nearly 60 years, made important contributions to North American geology and archaeology. To anthropologists he is known for his long and deep interest in the problem of man's antiquity in the New World and especially for his extensive excavations at an impressive number of Paleo-Indian sites in Texas and New Mexico.

Sellards was born in Carter City, Kentucky, on May 2, 1875. When he was still a boy, his family moved westward and settled in Kansas, the move being made by covered wagon in the classic pioneer manner. He attended the University of Kansas, where he received a B.A. degree in 1899 and an M.A. in 1900. He went to Yale University for advanced training in geology and was awarded the PH.D. in 1903. He taught geology at Rutgers University for one year and then

moved on to the University of Florida, a teaching post which he held until 1907, when he left to become State Geologist of Florida. In 1918 he accepted a position as research geologist on the staff of the Bureau of Economic Geology at The University of Texas, and he was associated with this bureau for the remainder of his career, serving as Chief Geologist (1922-1925), Associate Director (1925-1932), Director (1932--1945), and Director Emeritus (1945-1961). In the meantime he also served in other capacities, such as Professor of Geology at The University of Texas Memorial Museum (1938-1957).

During all these years of teaching and administrative work, Sellards found time to produce numerous professional publications. His publications in geology alone run to well over 100 titles, and in this field his most important contribution was The Geology of Texas, a 2-volume work which he prepared in collaboration with W. S. Adkins, C. L. Baker, and F.B. Plummer. Sellards also served as President of the American Association of Petroleum Geologists in 1938 and as Vice President of the Geological Society of America in 1943.

Sellards' career in archaeology, his secondary field, began about 45 years ago when he became interested in the earliest human occupations of the New World. At that time it was not fashionable to believe that man had arrived in America more than a few thousand years prior to its discovery by Europeans. He never accepted this view and, through his own investigations, vigorously helped to demonstrate the presence of man in this hemisphere at a much earlier period.

His archaeological career can be divided into 3 periods of activity: a short early period, 1916-1919, covering his studies of the Vero site in Florida; a somewhat longer intermediate period, 1930-1936, during which he reported on his work as geological consultant at several reputedly early sites in Oklahoma and Texas; and a long and much more productive third period, 1937-1935, when he and his associate, Glen L. Evans, excavated and reported a series of important Paleo-Indian sites in Texas and eastern New Mexico.

Sellards' first contribution to archaeology was made in 1916, when he reported human skeletal remains and artifacts associated with bones of extinct animals at Vero, Florida. As the evidence was not conclusive, the Vero site became the subject of considerable controversy between 1916 and 1920, figuring in some 25 papers by at least a dozen specialists in geology, archaeology, and physical anthropology. Later, when a similar find was made near Melbourne, Florida, discussion of the Vero site continued, and both localities have been re-evaluated several times during the past 40 years. Few sites in North America have been so thoroughly discussed over such a long period of time. At present the consensus is that, although these Florida sites may be rather old, the evidence available does not establish a valid association of man and the extinct animals.

Much later, through patient excavation at a number of animal kill and stratified campsites in the southern Plains, Sellards was able to demonstrate over and over again what he was unable to prove in Florida, that man and the extinct big game animals of the Pleistocene were contemporaneous. At Miami, Texas, he found Clovis points closely associated with mammoth bones; at Lubbock, Texas, he obtained Folsom points from a stratum containing extinct bison bones, as well as the first 2 radiocarbon dates for the Folsom complex; and at the stratified site of Blackwater Draw near Clovis, New Mexico, he demonstrated that Clovis points were older than Folsom points. Through his excavations at Plainview, Texas; Milnesand, New Mexico; and the previously mentioned site of Blackwater Draw (Portales horizon), he was able to show that certain Paleo-Indian projectile points, particularly the Plainview and Milnesand types, were made by different groups of Paleo-Indian peoples who occupied the area in a later period than the peoples who made the fluted points known as Clovis and Folsom. The Blackwater Draw site still stands as one of the key sites of the Paleo-Indian stage. Its stratigraphy led to the development of a culture sequence for the earliest known period in the southern Plains.

Sellards' major archaeological publication was the book, Early Man in America (1952), a compact synthesis which became a standard reference work and which went out of print within a few years after

its publication. At the time of his death Sellards was engaged in preparing a second and revised edition. It was in this book that Sellards applied the name "Llano complex" to the Clovis point and associated artifacts found at such widely distributed sites as Blackwater Draw (New Mexico), Miami and McLean (Texas), Naco (Arizona), Dent (Colorado), and Angus (Nebraska). This concept has been accepted and is in common use today.

Sellards was also one of the leading bibliographers in the Paleo-Indian field. In 1940 he published a detailed and very useful guide to the literature on early man in America, and this was twice brought up to date.

In archaeology, Sellards' first and only real love was the Paleo-Indian. Materials from Archaic and later cultural stages never held his interest for long and, when found at his Paleo-Indian sites, usually received cursory treatment in the published reports. Archaeologists find it easy to forgive him for this restricted interest because of his solid accomplishments in the Paleo-Indian field. He probably accumulated more basic data on the Paleo-Indian occupations of America than any other single individual of his time.

Sellards left his mark not only as a scientist but also as a man. Those who knew him best held him in high esteem. Glen L. Evans, in a recent tribute published in The Mustang, writes: "Dr. Sellards.....was a man of highest integrity and exemplary personal habits. He encouraged others and would praise an especially worthy performance, but he never flattered.....I never knew him to complain of physical pain or personal misfortune, although he had had his share of both".

A list of Sellards' publications in geology may be found in a forthcoming obituary in the Bulletin of the Geological Society of America. His archaeological publications are given below.

Sellards, Elias Howard.

1916a Human Remains and Associated Fossils from the Pleistocene of Florida. Florida Geological Survey, 8th Annual Report, pp. 123-160. Tallahassee.

1916b Human Remains from the Pleistocene of Florida. Science, Vol. 44, No. 1139, pp. 615-617. Washington.

1916c On the Discovery of Fossil Human Remains in Florida in Association with Extinct Vertebrates. American Journal of Science, Vol. 42, No. 247, pp. 1-18. New Haven.

1917a Further Notes on Human Remains from Vero, Florida. American Anthropologist, Vol. 19, No. 2, pp. 239-251. Lancaster.

1917b Note on the Deposits Containing Human Remains and Artifacts at Vero, Florida. Journal of Geology, Vol. 25, pp. 659-660. Chicago

1917c On the Association of Human Remains and Extinct Vertebrates at Vero, Florida. Journal of Geology, Vol. 25, 4-24. Chicago.

1917d Review of the Evidence on which the Human Remains Found at Vero, Florida, are Referred to the Pleistocene. Florida Geological Survey, 9th Annual Report, pp. 69-84. Tallahassee.

1918 The Skull of a Pleistocene Tapir including Description of a New Species and a Note on the Associated Fauna and Flora. Florida Geological Survey, 10th Annual Report, pp. 57-70. Tallahassee.

1919 Literature Relating to Human Remains and Artifacts at Vero, Florida. American Journal of Science, Vol. 47, pp. 358-360. New Haven.

1923 The Santa Barbara Skull. Science, Vol. 58, No. 1513, p. 538. Washington.

1930a Ancient, Not Prehistoric, Relics Found. Science News-Letter, Vol. 18, No. 486, p. 77. Washington.

1930b Malakoff Image (abstract). Bulletin of the Geological Society of America, Vol. 41, p. 207. New York.

1932 Geologic Relations of Deposits Reported to Contain Artifacts at Frederick, Oklahoma. Bulletin of the Geological Society of America, Vol. 43, pp. 783-796. New York.

1935 Discovery at Round Rock, Texas. Science News-Letter, Vol. 27, p. 67. Washington.

1936 Recent Studies of Early Man in the Southwestern Part of the United States. American Naturalist, Vol. 70, pp. 361-369. Salem, Massachusetts.

1937 The Vero Finds in the Light of Present Knowledge. In: George Grant MacCurdy (editor), Early Man, pp. 193-210. J. B. Lippincott Company. Philadelphia and New York.

1938 Artifacts Associated with Fossil Elephant. Bulletin of the Geological Society of America, Vol. 49, pp. 999-1009. New York.

1939 How Long Has Man Been in America? The Geological Society of America. New York. 5 pp. Script of a radio address delivered over station WLB (University of Minnesota), December 28, 1939, as a part of the 52nd Annual Meeting of The Geological Society of America, held in Minneapolis, Minnesota.

1940a A Prehistoric Stone Image. Texas Memorial Museum Informational Circular, No. 18. Austin.

1940b Early Man in America: Index to Localities, and Selected Bibliography. Bulletin of the Geological Society of America, Vol. 51, pp. 373-431. New York.

1940c Pleistocene Artifacts and Associated Fossils from Bee County, Texas (with Notes on Artifacts, by T. N. Campbell, and Notes on Terrace Deposits, by Glen L. Evans). Bulletin of the Geological Society of America, Vol. 51, pp. 1627-1657. New York.

1941a Stone Images from Henderson County, Texas. American Antiquity, Vol. 7, No. 1, pp. 29-38. Menasha.

1941b Terrace Deposits as an Aid to Age Determination of Early Man (abstract). Bulletin of the Geological Society of America, Vol. 52, No. 12, Part 2, pp. 2007-2008. New York.

1944 Ancient Carvings. In: Views in the Texas Memorial Museum. Museum Notes, No. 6, pp. 23-29. Austin.

1945 Fossil Bison and Associated Artifacts from Texas (abstract). Bulletin of the Geological Society of America, Vol. 56, pp. 1196-1197. New York.

1947a Early Man in America: Index to Localities, and Selected Bibliography, 1940-1945. Bulletin of the Geological Society of America, Vol. 58, pp. 955-978. New York.

1947b (With Glen L. Evans and Grayson E. Meade) Fossil Bison and Associated Artifacts from Plainview, Texas. With Description of Artifacts by Alex D. Krieger. Bulletin of the Geological Society of America, Vol 58, pp. 927-954. New York.

1950 Clear Fork Points. Bulletin of the Texas Archaeological and Paleontological Society, Vol. 21, pp. 110-111. Lubbock.

1952a Age of Folsom Man. Science, Vol. 115, No. 2978, p. 98. Washington.

1952b Early Man in America: A Study in Prehistory. University of Texas Press. Austin.

1955a Fossil Bison and Associated Artifacts from Milnesand, New Mexico. American Antiquity, Vol. 20, No. 4, pp. 336-344. Salt Lake City.

1955b Further Investigations at the Scharbauer Site. In: Fred Wendorf, Alex D. Krieger, Claude C. Albritton, and T. D. Stewart, The Midland Discovery: A Report on the Pleistocene Human Remains from Midland, Texas, Appendix 7, pp. 126-132. University of Texas Press. Austin.

1960a Some Early Stone Artifact Developments in North America. Southwestern Journal of Anthropology, Vol. 16, No. 2, pp. 160-173. Albuquerque.

1960b (with Glen L. Evans) The Paleo Indian Culture Succession in the Central High Plains of Texas and New Mexico. In: Anthony F. C. Wallace (editor), Selected Paper of the Fifth International Congress of Anthropological and Ethnological Sciences, Philadelphia, September 1-9, 1956, pp. 639-647. University of Pennsylvania Press. Philadelphia.

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PLAINS PUBLICATIONS

SERIALS

ARKANSAS ARCHAEOLOGICAL SOCIETY

Title: Newsletter
Serial No.: Vol. II, No. 1, January, 1961, pp. 18
Published At: Fayetteville, Arkansas
Editor: Hester A. Davis
Contents: Physical Dating Techniques in Archaeology, I. - Otto H. Zinke; The State Archaeological Society; Notes and News; Observations at the Sulphur Springs Site - Lewis Billings; Excavations of Hopewell Culture Burial Mounds at Helena, Arkansas - James A. Ford; Know Your Officers; Membership List.

Title: Newsletter
Serial No.: Vol. II, No. 3, March, 1961, pp. 18
Contents: Arqueología Panameña - Charles R. McGimsey II; Notes and News; Field Trip to Mineral Springs - Hester A. Davis; A Clay Ornament - Dean Stark; Book Reviews; Membership.

COLORADO ARCHAEOLOGICAL SOCIETY

Title: Southwestern Lore
Serial No.: Vol. XXVI, No. 4, March, 1961, pp. 3
Published At: Boulder, Colorado
Editor: John Greenway
Contents: Cart Using Indians of the American Plains - Omer C. Stewart; Notes and News; The Hatchet Site: A Preliminary Report - Eugene B. McCluney.

IOWA ARCHAEOLOGICAL SOCIETY

Title: Journal-Iowa Archaeological Society
Serial No.: Vol. 10, No. 3, January, 1961, pp. 101
Published At: State University of Iowa
Iowa City, Iowa
Contents: The Glenwood Sequence: A Local Sequence of Archaeological Manifestations in Mills County, Iowa.

KANSAS HISTORICAL SOCIETY

Title: The Historical Society Mirror
Serial No.: Vol. VII, No. 3, March, 1961, pp. 4
Published At: Memorial Building
Topeka, Kansas
Editor: Kirke Mechem
Contents: Museum Opens New Areas; Benefits from Gifts; Gifts Increase Value of Library Holdings; Political and Military Manuscripts to Society; Research Awards in Local History To Be Given; The Secretary's Desk; Book Ends; Books Are Off The Press.

Title: The Historical Society Mirror
Serial No.: Vol. VII, No. 3, May, 1961, pp. 4
Contents: Fair Ground Exhibit Among Museum Plans; Archaeological Field Work To Get Underway in June; Photograph Collection Aided by Recent Gifts; Traveling Exhibits Preparing to Roll; The Secretary's Desk; Don't Forget the New Books; Book-Ends.

Title: The Kansas Historical Quarterly
Serial No.: Vol. XXVII, No. 1, Spring, 1961, pp. 160
Published At: Kansas Historical Society
Topeka, Kansas
Editor: Kirke Mechem
Contents: When Kansas Became A State; Kansas: A Centenial Portrait - Emory Lindquist; Kansas Before 1854: A Revised Annals - Louise Barry; Notes on Kansas Cowtown Police Officers and Gun Fighters - Nyle H. Miller & Jos. W. Snell; The Annual Meeting; Bypaths of Kansas History; Kansas History as published in the Press; Kansas Historical Notes

KANSAS HISTORICAL SOCIETY (Cont'd)

Title: The Kansas Historical Quarterly
Serial No.: Vol. XXVI, No. 2, Summer, 1961; pp. 151
Contents: Ellsworth, 1869-1875: The Rise and Fall of a Kansas Cowtown - Robert Dykstra; The Early Career of C. K. Holliday - Fred S. Seely; Kansas Before 1854, Pt 2 - Louise Barry; Notes on a Kansas Cowtown Police Officer and Gunfighter - N.M. Miller and J.W. Snell; Recent Addition To The Library - Alberta Pantle; By-paths of Kansas History; Kansas History as Published in the Press; Kansas Historical Notes.

MISSOURI ARCHAEOLOGICAL SOCIETY

Title: Newsletter
Serial No.: No. 147, January, 1961, pp. 11
Published At: University of Missouri Columbia, Missouri
Editor: Dale R. Henning
Contents: Honor Roll; The Old Year and the New; The State Archaeological Society; Summer Field Session in Midwestern Archaeology; Dr. Frank C. Hibben to Lecture; An Unusual Find from Jasper County, Missouri; Tong Heads Great Plains Museum.

Title: Newsletter
Serial No.: No. 148, February, 1961, pp. 11
Contents: Some Indian Flint Quarry Sites in the Pinnacles Area of Saline County, Missouri - R.T. Bray; Editorial Comment; Oneota Conference, University of Missouri; A Pipe from Clayton Co., Mo.; Yuma?; Spring Meeting to be Held in Hannibal; Eden-Scottsbluff Projectile Points; Information Needed; The Plains Anthropologist; Honor Roll.

Title: Newsletter
Serial No.: No. 149, March, 1961, pp. 11
Contents: Trustees M.A.S.; Spring Meeting of the Missouri Archaeological Society; Mrs. Osterhout Donates Historic Land as Memorial; Some Early Artifacts from Scott County, Missouri - J. R. Bradham; The Archaeological Survey of Missouri.

MUSEUM OF THE GREAT PLAINS

Title: Bulletin
Serial No.: Vol. 1, No. 4, March, 1961, pp. 4
Published At: Comanche County Historical Soc. Lawton, Oklahoma
Editor: Barbara Anderson
Contents: Museum Dedication and Opening; Dedication Speaker; City Co-operation; Museum Directory; Chronicles of Comanche County; Plains Anthropologist; Spanish Tethering Weight; Great Plains Study; The Locomotive; Tong Named Secretary-Treasurer of Oklahoma Anthropological Society; Historical Tours; Caddoan Conference To Be at Lawton; Oklahoma Historical Society Tours; CCHS Renewals; Flags for Museum.

OKLAHOMA ANTHROPOLOGICAL SOCIETY

Title: Bulletin
Serial No.: Vol. IX, April 1961, pp. 83
Published At: University of Oklahoma Norman, Oklahoma
Editor: Robert E. Bell
Contents: The Grant Site of the Washita River Focus - F. W. Sharrock; D1-47, A Bluff Shelter in Northeastern Oklahoma - D.A. Baerreis and J. E. Freeman; Radiocarbon Dates from Archaeological Sites in Oklahoma - R. E. Bell; Society Membership List.

Title: Newsletter
Serial No.: Vol. 9, No. 4, January, 1961, pp. 6
Contents: Call for Annual Meeting; Prehistoric Elephant Skeleton Found North of Lawton - Bill Foster; Antiquity Laws in the U.S.S.R.; News.

Title: Newsletter
Serial No.: Vol. 9, No. 5, February, 1961, pp. 8
Contents: Annual Meeting; Tentative Program; News Items; Museum of the Great Plains - Marvin Tong; Some Recent Radiocarbon Dates from Oklahoma - R. E. Bell; Copena Points - R. E. Bell; Guilford Points - R. E. Bell

Title: Newsletter
Serial No.: Vol. 9, No. 6, March, 1961, pp. 5
Contents: Recent Mammoth Activity of the Salvage Project - J.B. Shaeffer; News; Some Projectile Points from Missouri - Marvin Tong

OKLAHOMA (cont'd)

Title: Newsletter
Serial No.: Vol. 9, No.7, April, 1961, pp. 6
Contents: Rescuing the Monuments of Nubia - J. A. Wilson (Reprinted from ACLS Newsletter, Vol. 12, No. 2, pp. 9-12); News: Western Arkansas Chapter; News Northwest Arkansas Archaeological Society; Earliest Man; Point Distribution Study.

SASKATCHEWAN MUSEUM OF NATURAL HISTORY

Title: The Long Creek Site
Serial No.: Anthropological Series, No. 2 1960, pp. 137
Published At: Department of Natural Resources Regina, Saskatchewan
Editors: B. Wettlauffer and W. J. Mayer-Oakes
Contents: Foreword - D. Cass-Beggs; The Site - W. J. Mayer-Oakes and B. Wettlaufer; The Finds - B. Wettlaufer; Soils - J. S. Clayton and W. K. Jansen; Climate - B. Wettlaufer; Vertebrate Faunal Remains - B. A. McCorquodale; Invertebrate Faunal Remains - A. LaRoque; Saskatchewan Sites - B. Wettlaufer; General W. J. Mayer-Oakes; Review of Cultures - B. Wettlaufer; General Summary - W. J. Mayer-Oakes; Conclusions - B. Wettlaufer.

SOCIETY OF AMERICAN INDIAN TRADITION

Title: American Indian Tradition
Serial No.: Vol. 7, No. 3, 1961, pp. 31
Published At: Soc. of American Indian Tradition - Alton, Illinois
Editor: Richard R. McAllister
Contents: War Clubs - T. Brasser; Otter Fur Turban - N. Feder; American Indian Music; Social Dance Song - W. Powers; Comment; Me Gwetch; A Note On: The Dakota Water Drinking Society - J. H. Howard; Buffalo Chips.

Title: American Indian Hobbyist
Serial No.: Vol. 7, No. 2, 1961, pp. 25
Contents: American Indian Museum: The Language; Cheyenne Style Beadwork - R. Conn; Potawatomi Buckskin Dress - Nokomis; Comment; Books; Photo Feature; The Shoshoni; Hall of Fame; Behind the Dewcloth - G. B. Beaver; Buffalo Chips.

Title: American Indian Tradition
Serial No.: Vol. 7, No. 4, pp. 31
Contents: Blackfeet Women's Clothing - R. Conn; American Indian Music; War Dance Songs - W. Powers; Rawhide Knife Sheath - J. Fogarty; Sleeve Bags - R. Salzar; Comment; Me Gwetch; A Note On: Snapping Turtle Shell Rattle - A. Einhorn; A Brief Note On: Iroquois Musical Instruments - W. G. Spittal; Photo Feature: Upper Yanktonai Sioux; Books; Buffalo Chips.

TEXAS ARCHAEOLOGICAL SOCIETY

Title: Newsletter
Serial No.: Vol. 5, February, 1961, pp. 10
Published At: University of Texas Austin, Texas
Editor: E. Mott Davis
Contents: Chit-Chat from the Editor; Informal Account of the TAS Annual Meeting At Houston; Official Record Annual Meeting; New Bulletin; An Important Publication; Notes on Arkansas; River Basin Salvage Overseas; Plains Anthropologist; Gulf Coast Society; A New Dating Technique: Obsidian; Book Notes; Request for Contribution for an Important Dig in Alabama.

Title: Newsletter
Serial No.: Vol. 5, No. 2, May, 1961, pp. 16
Contents: The Passing of a Great Man; This Issue; The Indians of Texas - W. W. Newcombs, Jr.; Correction; Local Societies; Note Concerning Bulletins; Membership List TAS.

UNIVERSITY OF OKLAHOMA

Title: Papers in Anthropology
Serial No.: Vol. II, No. 1, Fall, 1960, pp. 52
Published At: Anthropology Club, U. of Okla. Norman, Oklahoma
Editor: Julia A. Jordan
Contents: Culture and Personality; Sketch of Franz Boaz; A Standard Classification for Manos and Mullers in No. Amer.; Acculturation in Palaeo-Indian Tribes.

UNIVERSITY OF SOUTH DAKOTA

Title: Museum News
Serial No.: Vol. 22, No. 1, Jan., 1961, pp 5
Published At: University of South Dakota Vermillion, South Dakota
Editor: Wesley R. Hurt, Jr.
Contents: An Extant Winnebago Pirogues in the Sioux City Public Museum - E. Fugle; News of Staff; Recent Acquisitions; New Exhibits

Title: Museum News
Serial No.: Vol. 22, Nos. 2 and 3, Feb., Mar, 1961, pp 6
Contents: Arikara Indians, Chap. I, History; (Reprint Ed Series, Vol. 1, University of South Dakota, 1941)

Title: Museum News
Serial No.: Vol. 22, Nos. 4 and 5, April, 1961, pp 12
Contents: The Reva Site, Harding County, South Dakota - R. Gant

UNIVERSITY OF TEXAS

Title: Archaeological Series
Serial No.: No. 3, Dept. of Anthropology, 1960, pp 63
Published At: University of Texas Austin, Texas
Editor: T. N. Campbell
Contents: The Jake Martin Site: An Archaic Site in the Ferrell's Bridge Reservoir Area, Northeastern Texas - W. A. Davis and E. M. Davis.

WESTERN CANADIAN ARCHAEOLOGICAL COUNCIL

Title: The Present State of Archaeology in Western Canada
Serial No.: Proceedings No. 1, Sept, 1960, p 11
Published At: Museum of the Plains Indian Browning, Montana
Editor: Claude F. Schaeffer
Contents: Registrants; Coordination of Archaeological Research in Western Canada - R. S. MacNeish, Chrm; Review of Western and Northern Fieldwork, W. Duff, Chrm; Fieldwork in Alberta and Saskatchewan - T. F. Kehoe, Chrm.; Salvage Archaeology; C. E. Bordon, Chrm.; Historic Sites Archaeology - J. D. Herbert, Chrm.; The Future of Archaeology in Western Canada - D. Leechman, Chrm.

ARTICLES AND MONOGRAPHS

Title: Preliminary Appraisal of the Archaeological Resources of the Red Willow Reservoir, Hayes, Frontier, and Red Willow Counties, Nebraska.
Author: Marvin F. Kivett
Date: Jan., 1961, pp. 27, pl. 12, 1 Map
Published by: Nebraska State Historical Society - Lincoln, Nebraska

Title: Some Late Sites in the Oldman River Region, Alberta
Author: Richard G. Forbis
Date: 1960, pp. 12
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NOTICE OF PUBLICATION CHANGE

The original notice to Speakers at the 18th Plains Conference stated that the Conference Proceedings would consist of two parts, one section devoted to Abstracts of papers presented at the Conference, another to full-length treatment of Selected Papers.

However, the unusual response to the request for abstracts and papers resulted in much more copy than was originally anticipated. Since all aspects of publication are adjusted to a format of about 55 pages, when an issue is much longer the result is special problems of gathering, stapling, mailing and so forth, not to mention that of additional assistance in these matters. In view of these complications and our present finances, doubling the size of our issue did not seem warrented at this point.

Our solution to this problem was to plan to present the Selected Papers as a separate issue. The next regular issue will follow in August. But sometime before that date we hope to publish Selected Papers from the 18th Plains Conference as a special bonus issue.

The Editor

REISSUE OF THE PLAINS CONFERENCE NEWSLETTER

A very fine job of reprinting the Plains Archaeological Conference Newsletter, Volumes I, II, III, IV, V, and VI has been done by our Associate Editor, Robert L. Stephenson --- and at a reasonable cost too.

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ANTHROPOLOGIST

JOURNAL OF THE PLAINS CONFERENCE

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plains ANTHROPOLOGIST

Volume 6 May, 1961 Number 12, Part 2

SELECTED PAPERS

18th PLAINS CONFERENCE

A BRIEF ACCOUNT OF EXCAVATIONS AT THE CLUNY EARTHLODGE VILLAGE

R. G. Forbis - H. A. Huscher

The Cluny Earthlodge Village lies near the banks of the Bow River about 60 miles east of Calgary, Alberta. Sir Cecil Denny noted that in 1875 it occupied a commanding position on a ford of the river at Blackfoot Crossing; the river has since apparently changed its course for the site is no longer on it. Others briefly mention the site, but it was left to Edmund Morris, a painter of the Blackfeet, to write the most complete account to date in a short article on "An Ancient Indian Fort" for The Canadian Magazine in 1911 (Vol. 36: 256-9), in which he presented a sketch map and description.

Blackfoot traditions leave no doubt that the present Indians have known of the site for a long time. Except for the Morris account, in which the early inhabitants were identified as Crow Indians, traditional evidence is vague. They are referred to as "Dirt Lodge People", or by some similar designation; and in sign language this name is visually represented. The Blackfeet disavow any identification with them.

From evidence so far recovered, it seems quite certain that the builders of the village came from farther southeast, probably from the Upper Missouri River region. The ground plan of the village, the character of the artifacts and the stories of the Indians all strongly support this conclusion. The antiquity of the village does not seem to be great; it was very likely built and abandoned between 1700 and 1750.

The village is outlined on the north, west, and south by a regularly curving fortification trench which ends abruptly at a cutbank formed by a former meander of the Bow River.

The trench is still plainly visible on the surface, despite repeated floodings of the flat. It is some 825 feet long, enclosing a half-circle about 400 feet in diameter. Cross-sectioning established that, when dug, the trench had been about 3 1/2 feet below the surface and about 7 feet across at the top. Four breaks in ditch may have been causeway entrances to the stronghold.

Just inside the trench, which may have served to divert water from sheet flooding as well as to provide fortification for the site, there are 11 pits - "bastion-houses" for lack of a better term. These pits were arranged regularly inside the trench. The oval bastion-houses, 2 of which were excavated, proved to have been about 14 feet on the long axis, which is at right angles to the trench. Little cultural debris was recovered from the pits and no central post holes were found in the houses to indicate supports for a roof. A short curving line of posts was traced on the outer margin of one pit. Swirling flood waters may have scoured the pit floors. No doorways were identified, although Morris indicates entrances on his sketch map of 1911, and possible passageways still show at some unexcavated pits. One bastion-house had cache pits on both sides, in the usual Missouri Valley pattern; but cache pits were not identified elsewhere within the village proper.

A palisade fence, running parallel to the trench and 15 to 20 feet inside it, cuts across the interior margin of the 2 excavated bastion-houses, thus leaving them between the trench and palisade. The palisade is delineated by a shallow, narrow, and irregular ditch, the fill of

which in places preserves the remains of closely-spaced posts leaning inward toward the village center. Heavier posts, often in pairs, were set 2 to 3 feet inside the palisade footing, probably to carry horizontal string pieces against which leaning fence posts rested. The palisade may represent an earlier fortification which was later replaced by a more elaborate system including the trench.

An abundance of cultural remains was recovered from the partially dissected flat enclosed by the trench. Numerous hearths indicate that much of the daily life of the camp was carried on here. These hearths may mark the location of skin tipis or brush huts.

A preliminary analysis of the pottery suggests affiliations with the upper Missouri area. The vessels are globular jars, usually 7 to 8 inches in diameter and height. Lips are flattened, beveled out, or rarely, rounded. Rims may be straight and vertical, braced and insloping, or S-shaped. Most of the sherds are plain, as a result of scraping or smoothing;but check-stamping is very prominent, and many of the smoothed sherds were probably originally molded with check-stamped paddles. Cord-wrapped or thong-wrapped impressions, and fabric impressions, though present, are rare.

Two prominent forms of decoration at the Cluny site are foreign to pottery commonly found in Alberta. Dentate stamping was usually applied horizontally on the rim and neck; and sometimes in a herringbone design on the rim. Wrapped-rod and wrapped-cord impressions were set horizontally around the neck, and diagonally on the rim and lip.

Some decorative elements are the same as those occasionally found in pottery of the Alberta region. Incisions are narrow, made by a sharp edge, and run either zig-zag along the rim or diagonally across the lip. Punctations of the rim, neck and shoulder are of various sorts. Some were made with hollow tubes and triangular instruments. Still others were formed by pressing the clay with a finger or impressing it with a fingernail. Modelling, so far as is presently known, is limited to pinching the neck at regular intervals. This is a common feature of the usual Alberta pottery. Small baked clay discs, possibly gaming pieces, complete the ceramic inventory.

Objects of stone, bone and shell are included in the cultural inventory as well as items of copper or brass and possibly glass, representing trade goods.

Many of the chipped stone artifacts from Cluny are useless for diagnostic purposes, being large or small flakes which are chipped either unifacially or bifacially. Points and knives are distinctive, especially in that some are triangular and unnotched - rare forms in Alberta. Side-notched points and knives combine traits suggestive of recent age. Drills may be present. Ground stone tools include shaft smoothers, large grooved abrading stones, grinding slabs, grooved mauls, hammerstones and quartzite spall scrapers. A few small polished stones may have been pottery smoothers.

The inventory of bone tools is varied: beads, punches, awls, scapula knives, quill flatteners and grainers. Some rib fragments were partially or completely perforated. Other rib fragments may be knife handles for blades inserted along the edge. Shell ornaments comprise cylindrical beads as well as flat pieces of Unio, some of which are perforated while others are only partly drilled. Other slabs of shell, similar in size and shape, but not drilled, may be counterparts of the drilled pieces, perhaps used in a dice game.

Miscellaneous materials include red and yellow ochre, and an ammonite septum or buffalo stone. An iridescent glass bead may belong to the prehistoric component; brass or copper knife blades, intended for insertion in rib bone handles, date from the period of about 1750 A.D.

No burials were uncovered. Faunal remains identified at present consist only of buffalo and of large canines, probably dogs but possibly small wolves. Evidence of horticulture has not yet come to light.

NOTE: Submitted with permission of the Secretary, Smithsonian Institution

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AKSARBEN

John L. Champe

For some 25 years the terms Nebraska Aspect and Upper Republican Aspect have created difficulties in the classification of archaeological complexes attributed to the Middle Ceramic Period in the Central Plains. It has become increasingly clear that there are conceptual as well as terminological problems; hence, in legal language, a move to make more definite and certain, has now become essential.

The purpose of this analysis, then, is twofold. First, to set out as clearly as possible the nature of these difficulties, and second, to propose certain revisions in concept and in terminology designed to clarify the existing classification, with the express purpose of salvaging as much as possible of the present terminology and its well-established values. A brief historical synopsis of the classification in question will serve as introduction.

W. D. Strong, in 1933, first proposed a Nebraska Culture and an Upper Republican Culture based on his work in Nebraska from 1929 to 1931. Two years later these 2 "Cultures" were converted into "Aspects" of the newly proposed MTS or Midwestern Taxonomic System in a preliminary classification chart presented by Wedel, (1935; 251-254) and adopted with some modification by Strong (1935; 1-2). One year later 3 additional foci were proposed. The Nehawka Focus (Bell and Gilmore 1936; 300-355) combined 2 of the components on which Strong had based his original Nebraska Culture with 3 new components from Cass County sites excavated under Bell's direction. The Loup River Focus (Champe 1936; 248-299) defined a single component focus of the Upper Republican Aspect. The St. Helena Focus (Cooper 1936; 11-145) was removed from the Nebraska Aspect and attributed to the Upper Republican Aspect. This report by Cooper, a model for identification of foci, provided the basis for a serious challenge to the 2 aspect dichotomy which had been imposed on the several related foci. This opportunity passed, however, without consideration of this alternative to the solution which Cooper adopted.

A substantial revision of the original classification was proposed by Wedel (1940; Fig. 22) in connection with his excellent summary of Central Plains archaeology as of that date. The focii identifications just mentioned were accepted with some revision of other foci proposed in the first classification. The 2 aspects under discussion were retained but were now included in a single phase rather than in separate phases as was first suggested. This revision was generally accepted but with growing dissatisfaction with the 2 aspects. In 1953, after many private discussions and the informal but important meeting called the First Accidental Plains Conference, a proposal to substitute the Aksarben Aspect for the 2 earlier aspects was presented to and accepted by the 11th Plains Conference without dissent (Stephenson 1954).

This revision, however, has met with some objection and there is reason to believe that some of these objections may be well taken. In 1959, the issue was clearly drawn by Wedel in his new and important Introduction to Kansas Archaeology, in which he proposes a return to the earlier arrangement with 2 aspects to which he now adds a third, the Smoky Hill Aspect. His statement, in part, follows:

> From almost the very beginning of organized archaeological research in the Central Plains in the 1930's, it has been apparent that no sharp line separated Upper Republican and Nebraska Aspect distributions. Much of the area in Nebraska and northern Kansas that lies between "classic" Upper Republican and Nebraska Aspect localities is occupied by culturally

> intermediate sites whose bias roughly reflects their remoteness from one, and proximity to the other, of the 2 named complexes (Strong 1935; p. 168: Hill and Cooper 1937). This unhappy circumstance, though not unexpectable, complicates the problem of pigeonholing the many local variants in taxonomic terms.
>
> The transitional character of many of these remains is, I suppose, one reason for a recent move to jettison the 2 existing aspect names and to replace them with a single designation - Aksarben (see Stephenson 1954, p. 19). The basis for this proposed revision has nowhere been presented, so far as I am aware; and since I am not persuaded that there are any real gains in making such a change, I continue to regard the Upper Republican and Nebraska Aspects as valid categories and their designations as above reproach (Wedel 1959, 562).

This is an important statement by the scholar who has been most concerned with initiating and revising the classification under discussion. As such, it deserves our careful consideration. The need for immediate action however, is underlined by the fact that there is an impressive body of closely related data very nearly ready for publication. The placement of the site components in foci and aspects presents a problem that cannot be ignored. This is, of course, the concern of this study. The viewpoint to be presented here is that the existing classification is unsatisfactory, in concept and in terminology, but with the proviso that necessary revisions can be made without undue difficulty.

The crux of the classification problem, of course, is the assertion, without demonstration, of equivalence between the Nebraska and Upper Republican Cultures as originally defined and the Nebraska and Upper Republican Aspects as categories in the MTS or Midwestern Taxonomic System. The original identification of the cultures was made by Strong in 1933 prior to the proposal of the MTS categories by McKern and his collaborators. The 2 cultures as defined by Strong are frankly historical and interpretive categories, which involve consideration of time and of place. This fact automatically bars them as foci and aspects in which spatial and temporal criteria are specifically excluded. There is no doubt that the site data could have been presented as components, foci, and aspects in accordance with MTS requirements. The fact that such a demonstration has never been made can not be ignored. It is clear that the detailed site reports by Wedel (1934; 1935) and by Strong (1935) were originally written in terms of Strong's 2 cultures. The transmutation of these cultures into MTS aspects was accomplished very simply by Wedel:

> The Upper Republican "culture", as the term is employed in the present paper, is equivalent to the Upper Republican "aspect" as given in the fourth paper in this series. The new system of classification was adopted after the manuscript was completed, hence the older terms wil be retained here (Wedel 1935;158, f.n.3).

Strong makes very much the same points in the opening paragraphs of his Introduction to Nebraska Archaeology.

> The present paper was completed in April 1932, but publication at that time was not possible. It was revised and brought up to date during the early part of 1935. Since at that time the bulk of the manuscript was already written, it proved impractical to incorporate throughout the new terminology and taxonomic method proposed by McKern (1934) and others for Middle Western archaeology.
>
> Wedel (1935, IV) has prepared a "Preliminary Classification for Nebraska and Kansas Cultures" along the lines suggested by McKern. There follows a very similar classification for the cultural groupings discussed in the present paper . . . . If it be remembered that in the present report the much abused term "Culture" has been primarily employed to designate what is implied by the newly proposed, and useful term, "Aspect", a major difference between the two terminologies will disappear (Strong 1935; 1). (Italics Mine, JLC)

In both of these cases, these were praiseworthy attempts to order important masses of data in a new and unfamiliar system. It is clear, however, that there has been no real fulfillment of the MTS requirements for the definition of components, foci, and more importantly,

aspects. It must also be emphasized that the 2 cultures are valid categories in their own right, and, in fact, are precisely the kind of archaeological unit which Willey and Phillips have defined as their "phase" (Willey and Phillips 1958; 22). It follows, of course, that serious consideration must be given to the existing confusion in concept and in terminology.

A realistic acceptance of the fallibility of the existing classification opens the way to reappraisal and revision. A review of the literature and some personal familiarity with the sites and artifact inventories leads to the suggestion that the original classification should have been in terms of foci rather than aspects, of course, to ensure careful identification and comparison of the components defined. In the case of the Nebraska Aspect this has actually been accomplished, and this situation will be discussed first.

The original Nebraska Culture was based very largely on field work and excavation by Strong assisted by Wedel in eastern Nebraska near the Missouri River. Strong supplemented his own field work with the available records of early work in the same area by Gilder, and the excavations reported in an unpublished doctoral dissertation presented by Fred Sterns at Harvard. These secondary data, however, were not adequate for focus identification, hence, the identifications rest very largely on Strong's own observations. As has been shown, the Nebraska Culture was taken over bodily as an aspect. The 4 sites investigated by Strong appear on the charts by Wedel and by Strong as components of an Omaha Focus of the Nebraska Aspect. This identification seems to have been abandoned almost as soon as it was proposed. The 2 excavated sites are included with 3 newly identified components as a Nehawka Focus (Bell and Gilmore 1936), the 2 less satisfactory sites remain unassigned.

This suggests a relatively easy solution for the terminological difficulties. Abandon the relatively unused terms, Omaha and Nehawka as designations for the focus in favor of a Nebraska Focus, which, in turn, would replace the disputed Nebraska Aspect. The necessary comparison of components has already been made; the terms Omaha and Nehawka have had little use as focus designations; in short, establishing a Nebraska Focus in lieu of the Nebraska Aspect should create little, if any, confusion in the literature.

The changes just suggested actually provide a solution to the classification problem. It would be possible to include this new Nebraska Focus as one of the several very closely related foci within the Upper Republican Aspect, subject of course, to an adequate comparison of the foci themselves. This apparently logical solution, however, might create more problems than it solves, in view of the difficulty of explaining the fact that the new Nebraska Focus was junior to the Upper Republican Aspect, although the old Nebraska Aspect was of equivalent status.

A better solution can be suggested. Strong first set up his Upper Republican Culture based very largely on field work by Hill and himself along the Republican River in southern Nebraska, but with recognition of local variants in the Loup River valley at Sweetwater and Munson Creek. When this Upper Republican Culture became, by transmutation, the Upper Republican Aspect (Wedel 1935; Strong 1935) 2 foci were proposed for the components known along the Republican River, but without an actual demonstration of their validity.

From time to time, persons familiar with recent work along the Republican River as well as the older data have suggested that a single focus would be sufficient. It may be of interest that this writer worked out a comparative trait list for the early sites which was used in defining the Loup River Focus, now called the Sweetwater Focus (Champe 1936). This trait list seems adequate for identifying 1 focus for the Republican River, subject, of course, to review and revision in the light of more recent investigations.

The solution suggested, then, parallels the one for reducing the Nebraska Aspect to a Nebraska Focus. In the present case, abandon the Upper Republican Aspect as an MTS category, but identify an Upper Republican Focus on the basis of the trait list mentioned.

The Upper Republican Focus, so defined, could be reappraised and augmented by

the results of recent salvage archaeology in the Medicine Creek and Harlan County Reservoirs. Such a focus would comprise the material frequently discussed as "Classic Upper Republican" or by some similar term. The terms Lost Creek and Medicine Creek have never been widely used, and, as in the case of the Nebraska Focus, the change from Upper Republican Aspect to Upper Republican Focus should cause little if any difficulty. There are very real values associated with the term "Upper Republican" and these would be salvaged. The difference between an aspect and focus, however, does not seem to be a matter of great consequence to any persons except those actually engaged in setting up the classifications.

The procedure just outlined would result in the identification of 4 foci: Nebraska, Upper Republican, Sweetwater, and St. Helena. Several other closely related foci have been proposed, for example, Glenwood, Table Rock and others, and these must await a more definite comparison with the foci already defined. The 4 defined foci, however, can be grouped into a single aspect for which the name Aksarben was proposed to and accepted by the 11th Plains Conference.

Objections have been raised to the term Aksarben as well as to the concept of a single aspect. A justification for a single aspect has just been offered. As to the work "Aksarben", this is a well-known and thoroughly acceptable term originated some 70 years ago as a part of the name of an important civic and social organization in the city of Omaha. It carries certain regional connotations but without such definite limits as the term "Nebraskan" might. If there are good reasons for the objections, the term should be changed; otherwise, it would seem to be an appropriate name for a well-established Central Plains manifestation.

The foregoing discussion can be summarized briefly. First; the 2 classificatory concepts, Upper Republican Aspect and Nebraska Aspect, have never been demonstrated as valid categories within the Midwestern Taxonomic System. There is good reason to regard them as the kind of archaeological units that Willey and Phillips define as "phases". Second, a review of the evidence indicates that an Upper Republican Focus and a Nebraska Focus may well be substituted for the older formulations. Third, a single aspect, currently known as the Aksarben Aspect, should be substituted as the category which comprises the foci and components of the abandoned Upper Republican and Nebraska Aspects.

Certainly, these are substantial changes in a system of some 25 years standing. They should not be accepted casually or adopted lightly, and probably will not be. Neither may we refuse to make changes simply because we foresee new problems being raised as we solve the old ones.

J. O. Brew admonished us long ago in his Use and Abuse of Taxonomy:

> With regard to taxonomy, then, I believe we can say this. As archaeologists we must classify our material in all ways that will produce for us useful information. I repeat, we need more rather than fewer classifications, different classifications, always new classifications, to meet new needs. We must not be satisfied with a single classification of a group of artifacts or of a cultural development, for that way lies dogma and defeat. We are, or should be, in search of all of the evidence our material holds. Even in simple things no single analysis will bring out all that evidence.
>
> We must continually analyze not only our material but also our methods, we must continually check our concepts for distorting factors, and we must always remember to advise the reader thoroughly of the concepts we are using.
>
> We need have no fear of changing established systems or of designing new ones, for it is only by such means that we can progress. At the same time we must not present our new system or systems as a standard to be used and adopted by everyone and forevermore. We must recognize that any given system in its entirety will probably be applicable only to the given set of problems it was designed to meet. The main value of a published description of a given system is that it may then be adapted by another student to his problems, not that he should force his material into it (Brew 1946; 65).

With this statement as our charter, let us now proceed to full discussion of the

"Aksarben Aspect" and its problems.

NOTE: This paper was read before the Nebraska Academy of Sciences, April, 1960. It has been revised for presentation before the 18th Plains Conference.

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Lincoln, Nebraska

A PRELIMINARY SURVEY OF HUMAN SKELETAL MATERIAL FROM ARCHAEOLOGICAL SITES IN NEBRASKA

William M. Bass

Approximately 3/4 of the measurements and observations of the material reported on here were made during the summer of 1960. This portion of research was supported by a grant from the Research Committee of the University of Nebraska. About 1/4 of the data was obtained in the summer of 1959 as a part of a larger research project to gather data on human skeletal material from all of the Central Plains states. This initial survey was supported by the River Basin Surveys of the Smithsonian Institution and through a grant from the Anthropology Department of the University of Pennsylvania.

The following list of the number of individuals from archaeological sites in the state of Nebraska is a preliminary list only. Individuals counted range in completeness from a fragment of a single bone to complete skeletons in perfect condition.

A number of the sites listed are ossuary burial sites and it is almost impossible to determine exactly how many people were interred. When working with secondary burials, especially in mass burial pits, one is seldom sure if 2 bones which do not articulate belong to 1 or to separate individuals. The final count for a site of this nature can only be determined by counting individual bones and arriving at a minimum number. This has not, as yet, been done for all of the sites listed below.

Some of the material included was gathered from surface collections; some was referred to the laboratory by local collectors, friends or law enforcement officials. Thus adequate archaeological records do not exist for a small portion of the material. The section labeled Fig. 5 contained some cadaver material, a few miscellaneous skulls from South America and a few North American skulls not from the Plains.

Measurements and observations were taken on all cranial and post-cranial material possible. Cases of pathology, healed fractures, copper and red ocher staining, and anomalies were recorded.

Some sites reported may be represented by more individuals than are counted below. This may be true for 2 reasons. (1) There were a few cases in which the field notes listed fragmentary individuals discarded in the field. These were not counted in this survey. (2) Material from many of the ossuarys was too fragmentary to determine either age or sex. In this respect, I have been conservative; and only in cases where it was possible to determine with relative certainty that a separate individual existed did I count the material.

The final analysis of this material, which is now underway, may result in a different total number (either higher or lower) for some of the sites, since no individual bone counts are included in this survey. Child category includes ages from birth to 18.

University of Kansas
Lawrence, Kansas

	Male	Female	Child	?	Total
Lab. of Anthropology, Lincoln, Neb.	438	336	466	173	1,414
RBS, Lincoln, Nebraska	3	2			5
Nebraska State Hist. Society	45	25	9	3	82
U.S. Nat. Museum, Washington, D.C.	30	14		2	46
TOTAL	516	377	475	178	1,547

Fig. 1 - Summary of Nebraska Skeletal Material in Various Institutions

Site	Male	Female	Child	?	Total
BF1	1				1
BO7	3	3	2	9	17
BU1	8	6	29		43
BU21	2			1	3
CD3				1	1
CD4	31	33	29	14	107
CD7	43	46	36	14	139
CD10	1	1	1	2	5
CD11	1		2		3
CD21	6	2		8	16
CX00	1				1
CX2		1			1
DK1	1				1
DK2	31	12	16	2	61
DK9	8	15	37	12	72
DK10	10	12	37		59
DK13	67	64	111	17	259
DX3	3	1	5	3	12
DX4	25	20	13	11	69
FN11	4	1	3	3	11
HN1			1		1
HN5	1	1	1	1	4
HN46		1			1
HT1	8	3		6	17
HT3	2				2
HT9				1	1
KX1	11	18	32	3	64
KX3			1		1
KX5	1	1	1		3
KX6	8	9	6	12	35
KX8	1	2		1	4
KX9		2	2		4
KX10		1			1
KX12	3	1	3	1	8
KX13	2				2
PK1	10	5	20	4	39
SF10	18	7	25	17	67
ST4	1				1
WT1	22	8	25	1	56
Wallace Mound	11	3	4	2	20
Museum	59	41	20	22	142
No Numbers	34	17	4	5	60

Fig. 2 - Material from the Laboratory of Anthropology, University of Nebraska.

Site	Male	Female	Child	?	Total
FT13	1				1
FT17	1	1			2
FT18	1	1			2

Fig. 3 - Material from River Basin Surveys, Smithsonian Institution.

Site	Male	Female	Child	?	Total
CC00	1				1
HW2	1	2			3
HW3	10	4			14
HW6		2	1		3
HW8	12	4	1	1	18
MP2	1	2	2		5
NC1	4	4	2		10
WN3	7				7
WN6	3		2	2	7
WT3	1	3			4
WT4	4	4			8
VY1			1		1
VY3	1				1

Fig. 4 - Material from the Nebraska State Historical Society.

Site	Male	Female	Child	?	Total
Pawnee	7			1	8
Havlicek Farm	10	6			16
Howard County	2				2
Wallace Mound	3	1			4
Fort Robinson	1	1			2
Potta-watomie	1				1
Palmer Site	1				1
Whitten Site	1	1			2
Stevenson Ossuary				1	1
Hill Site	1				1
Lehn Site		1			1
Misc.	3	4			7

Fig. 5 - Skeletal material from Nebraska now located at the U.S. National Museum, Smithsonian Institution, Washington, D. C. (Studied last week of August, 1960).

ARCHAEOLOGICAL WORK WITHIN THE PROPOSED JOANNA RESERVOIR

Donald P. Heldman

This past spring and summer the University of Missouri continued its archaeological salvage program along the lower reaches of the Salt River within the area of the proposed Joanna Reservoir. The area to be inundated lies in Ralls, Monroe, and Audrain Counties, Missouri.

Upon conclusion of the site survey, it appears that 2 prehistoric occupations were present in the reservoir area. The earliest appears to be a late Archaic occupation, the artifactual assemblege of which seems to suggest relationships with the Nebo Hill complex of western Missouri (Shippee 1948, pp. 29-32. However, future investigations within the reservoir area will have to be carried out to clarify and demonstrate such relationships. A late Woodland (post-Hopewellian) occupation seems also to be present, the artifactual material tentatively appearing to be similar to that described for the Ralls Focus (Chapman 1948, pp. 118-123).

A number of petroglyph and pictograph sites are present within the reservoir area. None of these have been identified archaeologically. A pictograph site, located high upon a limestone bluff overlooking Salt River, just below the site of the proposed dam, exhibits over 50 anthropomorphic figures in varying states of preservation. These figures have been painted with a red pigment (possibly hematite), and practically without exception appear to be moving as though they were dancing. Most of the figures with torsos and limbs still extant exhibit a remarkable sense of proportion, with the heads displaying 2 feathers extending upward in "V" fashion. Several of the figures hold what appear to be spears or atlatls, and between one group of figures is obviously a burning fire. The figures appear in groups of 6 or more, each group appearing in a straight line but no 2 groups seemingly forming one narrative. Some of the groups are 20 to 25 feet above ground level; others are only several feet. The height of the figures is roughly 8 to 9 inches.

Excavations within the reservoir area included 2 houses and 1 large burial mound. The first of the excavations was carried out on 23MN260, a large open village site, located approximately 3 miles north of Santa Fe, Missouri. The site is situated high on a second terrace just north of the South Fork of the Salt River. Here 3 dark stains were noted during the surface survey, and 2 of these were uncovered. Both revealed postmold patterns of small structures. The first appeared essentially a semi-circle in outline, the postmolds averaged 1 1/2 feet apart. The north wall of this structure extended along an east-west axis, while the east, west, and south walls formed the arc of the semi-circle. The diameter of the postmolds averaged 4 inches. A doorway was indicated by the absence of postmolds in approximately the center of what was once the south wall. Three centerposts were present within the area enclosed by the outer postmold pattern.

The second structure was similar to the first except the north wall featured an additional row of irregularly spaced postmolds paralleling an evenly spaced inner row. Also, the second structure appeared to have no south wall, as evidenced by a lack of postmolds. Two centerposts were present in the second structure. Neither of the structures measured more than 20 feet across. The artifactual material associated with the structures indicates they were contemporaneous. The pottery seems to be similar to that defined for the Ralls Focus. No stone artifacts were found definitely in association with the structures, and no evidence of other features, such as a prepared floor or a hearth, were present because the site had been farmed for many years.

A large burial mound, measuring 80 feet in diameter, was excavated during the summer and fall. It is located about a mile southwest of Joanna, Missouri, and approximately 2 miles west of the site of the proposed dam. The mound is located on a second terrace within the river valley and is surrounded on the north and south by high limestone bluffs. An area 40 feet square was excavated to a depth of 2 to 5 feet.

The center of the mound contained a large circular burial pit of dark, mottled fill (possibly river gumbo). Within the pit were 6 burials, 3 of which were extended supine;2 were bundle burials;1 was represented only by teeth. Two of the extended burials had grave offerings in association. Small, corner notched projectile points similar to those found on open sites, considered to be late Woodland, were found with 1 burial; and several medium sized, stemmed projectiles were found with the other. The remaining 4 burials had no imperishable grave offerings in association. With the exception of 1 bundle burial found at a depth of 3 inches, none of the burials appeared to be intrusive. An interesting feature occurred within a protrusion of the otherwise circular burial pit; it was a hearth resting just above sterile soil within the dark, mottled fill of the burial pit. The remainder of the mound outside of the burial pit was composed of 2 distinct layers of fill. Resting on sterile soil was a 6 inch layer of yellow and grey mottled clay. Above it, and extending to the surface of the mound, was a layer of brown wind-blown soil.

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Perry, Missouri

ANTHONY: A KANSAS-OKLAHOMA BORDER SITE

Marvin R. Munsell

The Anthony site, 14HP1, is situated in Harper Co., south central Kansas, on land owned by Mr. Dow Mandeville, less than 10 miles from the Oklahoma border. The site occupies both banks of Cub Creek, a tributary of the Arkansas River through Wildcat and Bluff Creeks.

Excavation was conducted during the fall and winter of 1959-1960 by a crew of students from the University of Kansas under the direct supervision of James V. Chism and the writer. Equipment and financial aid was made available through the Division of Anthropology of the Museum of Natural History at the University of Kansas.

On the south bank of Cub Creek, a trench 5 by 35 feet was excavated to depths ranging from 18 to 72 inches. This trench consisted of 7 five foot squares which were excavated in 6 inch levels. One complete burial, fragments of a skull, and several hundred beads fashioned from hackberry seeds and bone, were recovered from the bluff on the north bank.

The artifact assemblage is rather meager and no fireplaces, cache pits, or indications of houses, except for a few fragments of daub, were found. The presence of charred corn, scapula hoes, and large quantities of mammal bones attests to a combination of hunting and horticulture as a mode of subsistance.

Chipped stone artifacts include 19 projectile points, 11 knife fragments, 2 drills, 13 end scrapers and a number of side scrapers. The majority of points are of a simple triangular form with slightly convex sides and flat to concave bases. These points exhibit fine pressure flaking over much or all of the surface. Several points of the Washita type and 1 point of the Harrel type are identifiable (Bell 1958: 30, 98). Two other points have not been satisfactorily identified.

Two fragments of the widespread diamond-shaped, alternate beveled knife were recovered. Another fragment has the beveled edge of the preceeding or diamond-shaped knife, but both beveled edges are on the same side of this specimen. Two other fragments bear a single beveled edge; but the beveling here is much less abrupt than on the above specimens, and the fragments themselves bear overall pressure flaking. The 6 remaining fragments exhibit simple bifacial chipping and are of a general ovate form.

One loaf-shaped sandstone abrader, bearing a longitudianal groove on each of its 4 faces, is present. Several fragments of sandstone which exhibit one or more ground surfaces were also found. Although both 1 and 2 hand manos and "simple slab" metates are reported from the area by resident collectors, these possible mano-metates do not admit of any statement concerning the identification of the site from which they came.

Three complete and well-polished bone awls, 3 fragmentary awls, and 7 fragments of bison scapula hoes, are in the collection. One "musical rasp" is also present. Much unworked bone material, including deer, bison, rabbit, fish, bird, and tortoise is also found. Approximately 1/5 of the bone material was partially charred.

One fragment of shell bears a single cut edge. No other worked shell was found, though a number of shells were recovered.

The hackberry seed beads appear to be rather uncommon. These beads as well as the small bone beads, were found in direct association with the fragmental skull removed from the north bank bluff, and nowhere else. A total of 283 beads of hackberry seeds and 24 of bone were recovered. These beads, the skull fragments, the single complete burial, and 1 re-worked potsherd, all were taken from the north bank and may or may not be of the same cultural level as the majority of artifacts which are from the

south bank. Time and manpower limitations precluded excavation toward proving or disproving stratigraphic correlation.

Three groups of pottery are present in the total assemblage of 458 sherds. Only 23 rim sherds are present. One basal sherd and 434 body sherds complete the collection. All sherds are cordmarked, though some display subsequent smoothing. There are no discernable slips or washes on the pottery.

One group, representing 3.0% of the sample, is tentatively placed with the generalized shell tempered ware identified throughout the Southern Plains under such labels as Nocona, Woodward, Neeley's Ferry, etc. (Schmitt and Toldan 1953:151 and Bell and Dale 1953:118-120). The shell tempered sherds found at the Anthony site are consistently medium to dark gray and homogeneous both in texture and color, exclusive of shell. Thickness ranges from 4 to 9 mm. One sherd of this group bears a ridge, 6 mm wide and 4 mm high, the width of the sherd.

A second group representing 46.5% of the sample, resembles the shell tempered group in color, texture, appearance of compactness, and thickness, but is tempered with fine sand; scant amounts of bone temper are also present. Thickness ranges from 4 to 10 mm. The few rims identifiable as of this type are decorated by fingernail punctates either on the lip or just below the rim. However, the scant representation - 8 rim sherds, 2 bearing decoration - does not justify use of rim characteristics as typological criteria.

A third group, 50.5% of the total, is characterized by medium to thick sherds, with medium to light gray cores and brick to buff surfaces, and is heavily tempered with sand and gravel. Small amounts of bone and shell temper are also present in some sherds; shell is the more frequent of the two. One restorable vessel, found by a local collector, is identified with this group. It is globular, although height exceeds width, with a flat base, loop handles, and simple flaring rim with a constricted neck area. The single base sherd is assigned to this group and also indicates flat based vessels.

This group is friable on the surface and tends to crumble rather than to break cleanly as does the second group or to laminate as does the shell tempered group. The few rim sherds of this group are predominantly simple straight or flaring ones with slight to moderate lip thickening. Small nodular protuberances are present on 2 sherds of this group, forming a ring around the rim of the vessel 10 to 15 mm below the lip. Thickness of these sherds ranges from 6 to 18 mm.

This last group most nearly resembles Riley Cord Roughened, as defined by Wedel (1959:183, 184), and is generally similar to most Central Plains pottery seen by the writer. However, no collared rims are present at the Anthony site, nor are rim decorations of the type here noted common to Riley Cord Roughened pottery.

Interpretations

Unfortunately, much of the non-ceramic material at the Anthony site is of such a general nature, as is found at many sites throughout the Plains at many cultural and temporal levels, as to be of little diagnostic value. The projectile points and the diamond-shaped knife fragments, however, are useful in chronologically bracketing the site. A range of 1100 to 1600 A.D. would be thus indicated (Bell 1958:30, 98).

The absence of data regarding house type, village structure, and several categories of artifacts, undeniably makes comparison and analysis rather tentative. Nevertheless, the assemblage seems to indicate a Central Plains Phase affiliation. The writer would further speculate that affiliation with the Smoky Hill Aspect or a similar complex is probable.

Wedel's prediction of such a manifestation in southern Kansas, as a possible precursor of the Smoky Hill, Nebraska, and Upper Republican aspects (1959:563-565) is thus given some verification. Assemblage similarities exist between the Anthony site and the Griffin site, 14RY1 (Wedel 1959:178-187); the Minneapolis site, 14OT5 (Wedel 1934); the Whiteford site, 14SA1 (Wedel 1959:512-522); the Pratt site, 14PT1 (Wedel 1959: 503-511); Potorff, A, 14LA1 (Wedel 1959: 381-407); and Mugler, 14CY1, Perreault, 14CY2, and Major, 14RC1 sites;

collections from which were examined at the University of Kansas Natural History Museum by the writer. However, one distinctive point found at the Anthony and Brown sites (Schmitt and Toldan 1953); the small unnotched triangular points shared with the Oklahoma Morris, CK39 (Bell and Dale 1953), Lee, GV3 (Schmitt 1950), and Brown sites, GD1 (Schmitt and Toldan 1953); and the shell tempered pottery found at numerous sites throughout the Southern Plains, suggest affiliation with Oklahoma complexes. Of the traits identified for the Antelope Creek and Optima foci, 65% of the former and 49% of the latter are shared with the Anthony site (Watson 1950).

Although there is this support for affiliation with complexes in Oklahoma, especially western Oklahoma, the shell tempered pottery, shared by the Anthony site and some Oklahoma cultures, is equally suggestive, by itself, of Mississippian affinities. A single ceramic effigy tortoise, found at the site by a local collector, provides further evidence for Mississippian contact. Since only these few items evince Mississippian influence, trade contacts and/or adoption of techniques thus introduced are suggested rather than actual cultural affinity.

In addition to the obvious question concerning the nature, extent, and direction of such affinities and contacts suggested above, one question of even wider pertinence was illuminated by the writer's attempts to identify Anthony ceramic material and correlate it with other ceramic types. Quite simply: how does one identify or correlate ceramic material when the usual diagnostics of vessel form, rim type, decoration, and finish are absent, inadequately represented, or not appropriate for a given sherd collection? This writer would suggest that criteria of (1) specific gravity, (2) hardness, and (3) microscopic analysis of temper and paste would provide the basis for an extension of descriptive reporting on ceramic material which would not only prove invaluable in dealing with small collections, or those with meager rim sherd representation and meager decorative or vessel form data, but could serve to clarify typological problems concerning large, representative collections found throughout the Northern Plains. The first criterion is not, to this writer's knowledge, presently employed in the Plains. The second is used, but not as consistently nor as precisely as could be desired. Microscopic analysis of temper and paste is a rarity in analysis in the Plains, but a practice, especially in Meso-America, that is of increasing necessity for complete - often for really accurate - identification of these materials.

Until more, and more extensive, site excavation is done, archaeology in the Southern Plains may be forced to continue dealing with small, barely adequate collections of this sort.

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THE WHITE BULL MANUSCRIPT

James H. Howard

In 1959 the library of the University of North Dakota, Grand Forks, acquired a rather unusual document. This consisted of a manuscript written in the Dakota language and supplemented by pictographs by Chief Joseph White Bull. White Bull was a member of the Minneconjou subband of the Teton Dakota. He was a nephew of the famous Chief Sitting Bull. The manuscript was collected from White Bull in 1931 by Usher L. Burdick, of Williston, North Dakota.

The manuscript contains a variety of information. There is a traditional history of the Minneconjou, accounts of bison hunts, a Dakota winter count embracing the years 1822 through 1932, and a pictographic record of White Bull's many war exploits.

During the winter of 1959-1960 Mrs. Lolita Huxel, assisted by Solomon Du Marse, a Dakota informant, and the writer, succeeded in translating and interpreting the winter count section of the manuscript. This will appear shortly in the Plains Anthropologist. In the summer of 1960, with the aid of a grant from the University of North Dakota research fund, the writer was able to secure a complete translation of the remainder of the manuscript, plus interpretations of some of the symbolic details of the pictographs. Of particular assistance in this project were Mr. and Mrs. Bennett Sierra, Pine Ridge, South Dakota, and Steven Feraca, anthropologist at Pine Ridge.

The section of the manuscript concerning White Bull's war record is of particular interest because of the statement of the late Stanley Vestal that White Bull was the slayer of General George Armstrong Custer at the battle of Little Big Horn. Vestal describes this in the February, 1957, issue of American Heritage as dictated to him by White Bull:

> I charged in. A tall, well-built soldier with yellow hair and mustache saw me coming and tried to bluff me, aiming his rifle at me. But when I rushed him, he threw his rifle at me without shooting. I dodged it. We grabbed each other and wrestled there in the dust and smoke. It was like fighting in a fog. This soldier was very strong and brave. He tried to wrench my rifle from me. I lashed him across the face with my quirt, striking the coup. He let go, then grabbed my gun with both hands until I struck him again.
>
> But the tall soldier fought hard. He was desperate. He hit me with his fists on the jaw and shoulders, then grabbed my long braids with both hands, pulled my face close and tried to bite my nose off. I yelled for help: 'Hey, hey, come over and help me!' I thought that soldier would kill me.
>
> Bear Lice and Crow Boy heard me call and came running. These friends tried to hit the soldier. But we were whirling around, back and forth, so that most of their blows hit me. They knocked me dizzy. I yelled as loud as I could to scare my enemy, but he would not let go. Finally I broke free.
>
> He drew his pistol. I wrenched it out of his hand and struck him with it 3 or 4 times on the head, knocked him over, shot him in the head, and fired at his heart. I took his pistol and cartridge belt. Hawk-Stays-Up struck second on his body.
>
> Ho hechetu! That was a fight, a hard fight. But it was a glorious battle, I enjoyed it. I was picking up head-feathers right and left that day. (1957, p. 9)

In his American Heritage article Vestal refers to a ledger in which White Bull recorded his "military history", the location of which he (Vestal) did not know (1957, p. 90). It is the opinion of this writer that the manuscript under discussion here is the one referred to by Vestal. In this manuscript we find 3 scenes representing the fight between White Bull and

the man he identifies as Custer.

If White Bull was, indeed, the slayer of Custer, a number of questions may be raised. The most pertinent of these, perhaps, is why Vestal did not identify White Bull as the slayer of Custer earlier. In his article Vestal answers this as follows:

> Because of the hostility shown towards White Bull by his white neighbors, I was unwilling to publish these facts while the Chief and his immediate connections were still alive. If those who knew him felt so strongly, I feared that if this story were published in my biography of the Chief (Warpath, The True Story of the Fighting Sioux, 1934) some hot head might harm the old man. Now it can be told. (1957, p. 91).

Another question which might be raised is how White Bull was able to identify Custer, a man he had never seen, in the dust and turmoil of the battle field. It appears that White Bull actually did not know his man at the time, but that later his relative, Bad Soup, who had been around Fort Abraham Lincoln and knew Custer by sight, identified the body (Vestal 1957, p. 90).

All of this, of course, still does not prove that White Bull was the slayer of Custer. It is still the word of one old Indian man, supported by his biographer, Stanley Vestal. Nevertheless, it should be pointed out that the newly discovered White Bull manuscript confirms and supplements Vestal's American Heritage account in every respect. The pictograph published in American Heritage is obviously the work of the same man as the one who prepared the White Bull manuscript. Details of dress, down to minor details such as White Bull's war charm or wotawe match perfectly.

Someone did the deed and it would appear that Chief Joseph White Bull is our most likely candidate.

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1957 The Man Who Killed Custer, American Heritage, February 1957.

University of North Dakota
Grand Forks, North Dakota

PRELIMINARY EXCAVATIONS AT THE ALBERTSON SITE #1 A NORTHWEST ARKANSAS BLUFF SHELTER

Don R. Dickson

About the middle of March, 1960 a very fine bluff shelter, now designated as site 3/4G1, was brought to the author's attention. On April 10th this shelter was visited and immediately preparations were made for its excavation. The owner of the property was very cooperative and written permission was secured to work as long as necessary at the site.

As the title indicates, this fine shelter is located in northwest Arkansas. More specifically, it is in Benton County along a clear spring-fed stream less than 1 mile from the Oklahoma line. This shelter faces the southeast generally and has a very unique shape, that of a quarter moon. The bluff in which it is located lies parallel to the stream, which at this point runs from the northeast toward the southwest. The bluff containing the shelter is approximately 33 feet high where the shelter is located, although it is somewhat higher immediately to the southwest and diminishes to a sloping hillside immediately to the northeast. A cultivated field, which seems to have been inhabited throughout the Archaic and well into the Gibson Aspect, lies adjacent to the shelter and immediately above it where the slope becomes level ground. This field stretches south and west almost 1/4 of a mile where it joins another field which was also inhabited but only during the Archaic. This field continues another 1/4 of a mile slightly south and west then turns sharply northwest for a comparable distance. All of this area apparently supported a fairly heavy aboriginal population during the Archaic for projectile points and other tools have been found unevenly distributed over a portion of land approximately 50 acres in extent. The only arrow points discovered have been found within 200 yards of the shelter being described. Several Dalton, Plainview and Agate Basin points have been found on the surface at the extreme southwest corner of this cultivated area.

Shelter 3/4G1 has been formed by creek erosion when the valley was at a much higher level than today. Exfoliation has contributed somewhat to the height of the shelter, especially toward the back; however, the forward portion throughout the entire length is quite smooth and no rocks have fallen recently. The floor was fairly level and sloped slightly toward the south to the dripline and then dropped sharply toward the stream only 25 feet away. Measurements suggest this location is well above the normal flood level. In recent years no water has approached any closer than about 6 feet below the southern extremity of the shelter, which is at least 12 feet above the normal stream level. A heavy growth of small trees and 2 large ones stand between the site and the stream making it invisible at a distance of 100 feet. The shelter upon discovery was 5 feet 8 inches high 3 feet back of the dripline and dropped to 4 feet 6 inches seven feet behind the dripline. The overhang at this point, approximately the center, is 17 feet. At the waterline in front of the north half of the site a slight rise begins and becomes more accentuated at the extreme right as one faces the shelter. This rise is probably due to material washing from the bluff above and also to soil deposited by the inhabitants for protective reasons or during house cleaning activities. The latter may be explained when one notes the several small limestone and chert rocks resting on the floor of the site.

Previous excavations at the location had been conducted by a groundhog or woodchuck who chose to explore in the extreme right forward corner of square 2L3F. Apparently the woodchuck in his preparation of a home brought a point or two to the surface for pothunters have

the man he identifies as Custer.

If White Bull was, indeed, the slayer of Custer, a number of questions may be raised. The most pertinent of these, perhaps, is why Vestal did not identify White Bull as the slayer of Custer earlier. In his article Vestal answers this as follows:

> Because of the hostility shown towards White Bull by his white neighbors, I was unwilling to publish these facts while the Chief and his immediate connections were still alive. If those who knew him felt so strongly, I feared that if this story were published in my biography of the Chief (Warpath, The True Story of the Fighting Sioux, 1934) some hot head might harm the old man. Now it can be told. (1957, p. 91).

Another question which might be raised is how White Bull was able to identify Custer, a man he had never seen, in the dust and turmoil of the battle field. It appears that White Bull actually did not know his man at the time, but that later his relative, Bad Soup, who had been around Fort Abraham Lincoln and knew Custer by sight, identified the body (Vestal 1957, p. 90).

All of this, of course, still does not prove that White Bull was the slayer of Custer. It is still the word of one old Indian man, supported by his biographer, Stanley Vestal. Nevertheless, it should be pointed out that the newly discovered White Bull manuscript confirms and supplements Vestal's American Heritage account in every respect. The pictograph published in American Heritage is obviously the work of the same man as the one who prepared the White Bull manuscript. Details of dress, down to minor details such as White Bull's war charm or wotawe match perfectly.

Someone did the deed and it would appear that Chief Joseph White Bull is our most likely candidate.

Vestal, Stanley
1957 The Man Who Killed Custer, American Heritage, February 1957.

University of North Dakota
Grand Forks, North Dakota

PRELIMINARY EXCAVATIONS AT THE ALBERTSON SITE #1 A NORTHWEST ARKANSAS BLUFF SHELTER

Don R. Dickson

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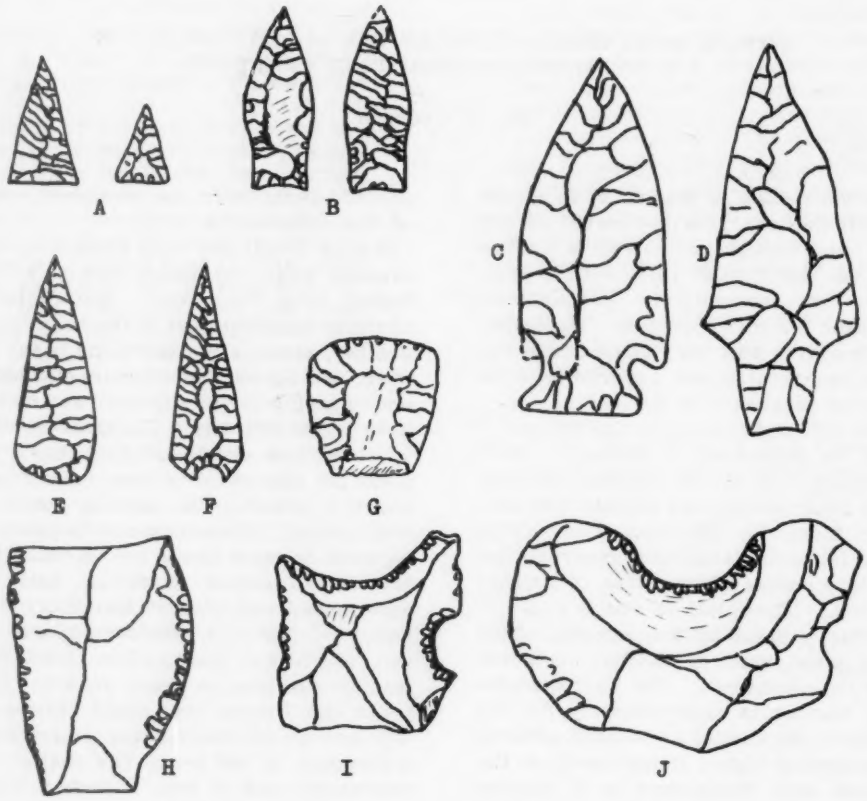


A = Fresno Points affiliated with Neosho Focus of Late Prehistoric. Both points closely associated with incomplete Burial #1.

B = Unnamed point type found occasionally in Neosho Focus deposits. Features parallel basal edges and expanding midsection. Base is straight to slightly concave. The left specimen associated with incomplete Burial #1.

C = Corner notched point from Stratum #1. Cultural affiliation: Late Prehistoric Neosho Focus.

D = Langtry Point from Stratum #1. Neosho Focus.

E = Nodena Variant from Stratum #1. Neosho Focus.

F = Rare Basal Notched type found occasionally in Neosho Focus sites.

G = Small end or thumb-nail scraper common in Neosho Focus sites.

H = Side Scraper also common Neosho Focus artifact.

I = Spokeshave. One of 5 found close to gether in Stratum I. Four show signs of considerable use. One does not seem to have been used much. Spokeshaves of this type, manufactured from a flake, are not commonly found in Late Prehistoric deposits, Neosho Focus

J = Spokeshave. One of 2 large specimens from Stratum I.

Fig. 6 - Specimens from Stratum I, Albertson Site

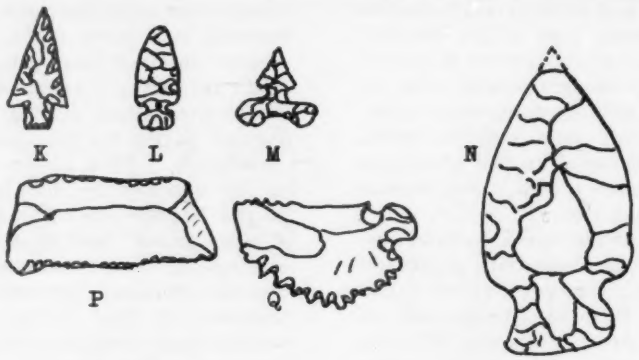
sunk a small irregular hole beside the animal's tunnel and another very shallow one at the extreme right of the shelter. Fortunately these pothunters hit a gravely layer which they thought deposited by the stream and left without doing much damage. A commonly held opinion among local artifact "miners" is that aboriginal peoples never used a site if the stream inundated it at any time.

Upon arriving at the site a surface survey yielded 2 complete dart points (one Langtry, the other Castroville) and numerous flakes of flint and fragments of animal bone. After mapping the site, excavations were initiated in square ORIF. The method used was to carefully turn all dirt with a trowel so that as many artifacts as possible could be found in situ. As a result, almost all points have been found in place. Only a few very fragmentary specimens and 2 or 3 very tiny bird points have been missed in the troweling process. This troweled dirt was then transferred by shovel to a screen with 1 inch mesh above on a hinged section and 1/4 inch mesh below.

Arbitrary 6 inch levels were chosen at first to determine the nature of any existing stratigraphy. All artifacts, complete or fragmentary, found in situ were "measured in" and this information regarding position and depth was written on the specimen sack and on a card which was placed in the sack. Proper forms were filled out during the course of the excavation and detailed field notes, supplemented by photographs and drawings, were taken. The excavation procedure was such that if an artifact was missed during the process of troweling an approximate position would be known. The margin of horizontal error in this case would be no more than 2 inches at the most.

At the present time 4 squares have been excavated to a depth of 36 inches. The stratigraphy has been very clear and indicates 3 distinct periods of habitation. From the surface to approximately 12 inch level the soil is dark brown and very rocky. Almost all of these rocks are from the stream below and an unusual amount of them are colored either blue, orange or red. The height of the site, as well as the abnormal amount of colored pebbles, suggests that the late inhabitants of the site carried these gravels into the shelter for some purpose. This characteristic has been noted at other sites which contained late prehistoric deposits. Flint artifacts, charcoal, and split animal bones throughout this gravel-like layer further dispel the possibility of repeated inundation. This upper 12 inch portion of the deposits can be clearly attributed to the Neosho Focus. Artifacts include Fresno points, leaf shaped points, Langtry points, Gary Stemmed specimens and Neosho Punctate pottery sherds. All together 47 flint or bone artifacts, as well as numerous sherds, have been recovered. The trench, consisting of 4 five foot squares, ran perpendicular to the back of the shelter at midpoint. Careful excavation revealed the presence of a refuse pit near the back wall. Obviously this pit was dug by the early Neosho peoples and extended to a depth of approximately 28 inches. Many split animal bones, several stones apparently carried in, and fragments of several discarded pottery vessels were found in this pit. Projectile points were not numerous in the upper portion of the pit. At the 24 inch level a very unique arrangement of bones was uncovered.

The principal feature of this stratum was a skull which has been irregularly broken from a point on the right side about midway of the temporal, back across the lower parietal, up to the upper portion of the occipital where it joins the lambdoidal suture, then across the back and sharply downward on the left following the parietal on around and including the frontal. The maxilla and mandible are absent from the major portion of the skull, although possible portions of them were found about 3 feet away. Of course all of the area containing the foramen magnum was missing. One rib was lying next to the skull about an inch from where the left ear would normally be. Another was found about 16 inches from it. Several phalanges were found about 7 inches forward and to the right of the skull. Several split and unmodified animal bones (mostly deer) and a few other split bones (at present unidentified) were found near the skull segment. A large and much used hammerstone lay right beside the fragmentary skull at a distance of only 3 inches. This



K = Bonham Point. Unusual in this area. 3/4G1 #7, SQOROF, 45F, 3R, 15 1/2D.

L = Resembles Reed Type but both specimens found in Startum 2 have much smaller basal areas and more rounded tips than Reed Points.

M = Resembles both Washita and Toyah types. Not commonly found in this area. Catalog Data: 3/4G1 #91, SQOROB, 12R, 18B, 15D. Loose in deposit of Stratum II.

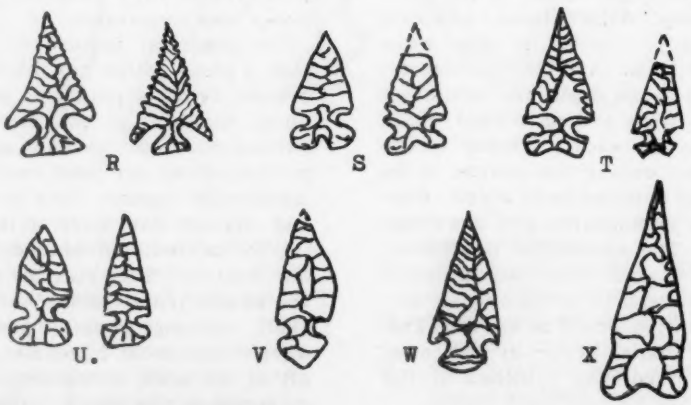
N = Possible Williams variant. Stratum II.

O = Gary point featuring excellent workmanship. Same Stratum.

P = Small side scraper or flake knife.

Q = Rare serrated tool possibly used in sawing bone, etc.

Fig. 7, A - Specimens from Stratum II, Albertson Site



R = Scallorn points showing remarkable workmanship Gibson Aspect Caddoan cultural affiliation. Left specimen from 33 inch depth, specimen on right from depth of 28 inches.

S = Morris points. Gibson Aspect Caddoan.

T = Possible Morris variant. Same cultural affiliation.

U = Reed points. Same cultural affiliation.

V = Very rare type found infrequently in this area in Gibson Aspect sites. While the point is much smaller it resembles the "Turkey Tail" type associated with Early Woodland cultures in the Ohio Valley. This is the second specimen found recently by the author in this immediate area. The other specimen (not shown) features excellent workmanship.

X = Possible large Morris point with shallow notches.

Fig. 7, B - Specimens from Stratum III, Albertson Site

arrangement of bones seemed to be lying on the bottom of the refuse pit. Associated artifacts include 4 Fresno points, 1 Gary Stemmed dart point, and a small crudely flaked stemmed point. A large incomplete bone awl and a bead of unidentified shell were possibly associated with this bone arrangement as were several pottery sherds of unusually large dimensions. This was the heaviest concentration of artifacts so far found. Five spokeshaves were found in Stratum 1.

Stratum 2, which begins immediately below Stratum 1 at approximately 12 inches, varies in thickness from 4 to 11 inches. The fine yellowish color soil containing very few rocks contrasts strongly with the dark brown and rocky soil above. This stratum contains quite a bit of ash and charcoal as well as numerous split animal bones. A few charred acorns and hickory nuts were found in this stratum. Artifacts include Gary Stemmed dart points, 1 large point roughly side notched and with expanding stem, 2 small arrowpoints also side notched and with expanding stem, 1 Bonham point, and 1 small side notched arrow point with a concave base equal in width to the total length. Two side scrapers and 1 abrading stone complete the assemblage so far recovered from this stratum. Features were mainly small fire pits ranging in depth from 3 to 6 inches and limestone rocks carried in from the stream below.

Stratum 3 begins roughly at the 18 inch level and continues down at least to the 36 inch depth. Three Woodland type points and a few Woodland type sherds suggest a Woodland level is immediately beneath this stratum. All Woodland type material has been found at about the 36 inch depth. This stratum can be assigned to the Gibson Aspect. Caddoan point types represented include Scallorn, Reed, Morris, Gary, Langtry, Castroville and a point featuring basal notches and slightly expanding stem. One lanceolate point with considerable patination was found near the back wall. This point is undoubtedly much older, belonging to the early Archaic, and could have been placed in one of the several small crevices near the back wall, later falling to the floor due to the process of exfoliation. Other artifacts include tools used probably in the cutting of bone, 1 drill, 6 awls, 1 antler flaking tool, 2 deer ulna bone flaking tools and 1 very unusual tool made from antler. The latter tool has been made by sawing off the tip of an antler segment then drilling a hole down into the hard antler apparently to hold a small polished sliver of bone found nearby. The antler haft would allow the user greater facility with the small "awl-like" sliver of bone.

Probably the most important finds in this stratum have been 2 gravers manufactured from slivers by a special technique. The sharp cutting edges produced resemble strongly those found on burins and show signs of use. Probably these tools were used in the manufacture of the large bone awls from deer long bones. Such specimens could easily be overlooked in the process of excavation.

Small fire pits have been common features in Stratum 3. These have frequently contained considerable quantities of charred acorns, hickory nuts and walnuts. This depth has varied from 2 inches to 8 or more and width from 7 to 14 inches. One oval shaped fire pit was 27 inches long, 18 inches wide and about 6 inches deep. Other features have been 3 cairns, 2 of which were probably erected in the process of getting stones out of the way, the other seems to have been used to support a pottery cooking vessel. The soil in Stratum 3 has consistently been a fine medium brown ash with very few stones of any kind, except flint nodules, but with an abundance of animal bones both large and small. Deer is the most common bone, however, fish bones and small animal bones, such as squirrel and opossum, are also frequently encountered. Fresh water mussel shell is fairly common, however, it is also found in the 2 strata above.

A partial burial was uncovered in level 5 of square OROB. This burial (Number 2) contained only 2 adult femur bones, 2 incomplete rib bones, 1 lumbar vertebra, a small portion of what appears to represent the tibia (split open), several phlanges and several unidentified bone fragments, all of which have been split open by heavy blows. In positive association with these bones were found the tips of 2 projectile points, 1 Langtry with angular blade, 1 "killed" mano or milling

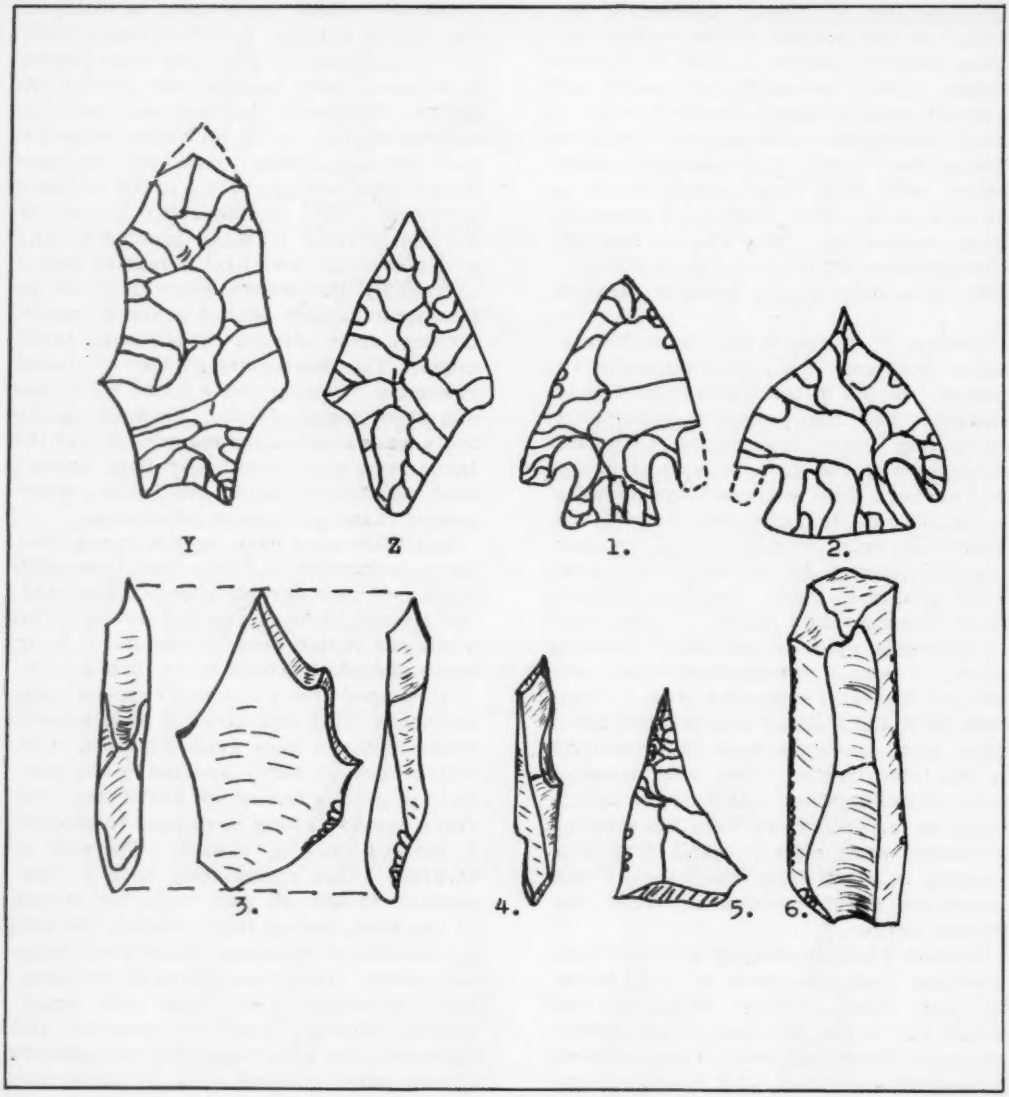


Fig. 8 - Artifacts from Stratum III, Albertson Site

Y = Langtry point with angular blade found associated with Burial 2.

Z = Gary point. Gibson Aspect Caddoan affiliation.

1 = Basal area similar to the Marshall type but this specimen much thinner with blade more triangular than Marshall.

2 = Castroville point.

3 = Tool used to engrave and groove bone; probably to facilitate splitting. Shows considerable use on its sharp point. Resembles a burin in many respects.

4 = Apparently used as a graver. Very sharp tips show signs of use.

5 = Drill.

6 = Flake knife showing use marks. Possibly hafted. More common in Woodland sites.

stone, and 1 deer ulna flaking tool. The Langtry point has a small portion of the tip missing. It might be noted that another "killed mano" and a similar deer ulna flaking tool were found immediately above the burial. Possibly these tools were originally associated with the burial but were moved by the Neosho peoples who excavated the refuse pit above this bone arrangement. It seems likely that the persons digging the pit threw out the other bones, however, this may have not been the case for the refuse pit ended several inches above these bones. The first group of bones may represent portions of this burial moved during the process of digging the refuse pit. Several factors tend to discredit this hypothesis. First, a brief study of the bones suggests 2 individuals are involved. Second, a number of Neosho projectile points (Fresno Type) were definitely associated with Burial #1 while no artifacts that can definitely be attributed to the Neosho Focus have been found any deeper. Normally the points found have been widely scattered throughout the deposits. In the case of both incomplete burials, artifacts had been concentrated around the bones. Finally, the artifacts found with burial #2 at this site seem to be Caddoan. Bone tools were common in the Gibson Aspect Stratum (Number 3) while Stratum Number 1 contained only a very few pieces of worked antler. The Langtry with angular blade does not suggest the Late Prehistoric. Two Scallorn points were found nearby on the same level. These same facts tend to militate against the possibility of both incomplete burials belonging to the Neosho Focus. The depth of Burial #2 was 36 inches from the datum plane, which in this case is the surface of the deposits. Both burials were sketched and photographed; the first has been restored on a plaster base for display. Stratum 3 yielded a total of 66 artifacts in the 4 squares excavated, of which 44 have been projectile points.

A final report of this site will be published as soon as excavation is completed. Figures 7-8 shows typical examples of the projectile points and other tools found in each Stratum. Figure 9 shows the numbers of each type so far found. Because of the clear stratigraphy and undisturbed nature of this site (only 2 potholes of minor nature) the author believes it will yield very important information in regard to prehistoric man in northwest Arkansas, southwest Missouri and northeast Oklahoma.

Oklahoma Anthropological Society
Bartlesville, Oklahoma

TYPE	STRATUM I	STRATUM II	STRATUM III	COMMENTS
Bonham		1		Rare in area
Castroville			2	Common
Fresno	8			Very Common
Gary Stemmed	2	4	3	Very Common
Lanceolate Shape			1	Archaic Type
Langtry	2		2	One Burial Assoc.
Morris			2	Common
Morris Variants			2	Fairly Common
Nodena Variants	3			
Reed Points			2	Common
Scallorn			13	Common
Woodland Types			3	Out of Context
Unfinished	1		1	
Other Points	5	4	13	Various types
TOTAL POINTS	21	9	44	
End Scrapers	6			Common
Side Scrapers	3	2		Common
Spokeshaves	5			Unusual
Knives	4	2	6	Common
Awls			6	Common
Drill			1	Fairly Common
Engraving Tools			2	Unusual
Hammerstone	2			Common
Other Tools	6		7	
TOTAL TOOLS	47	13	56	125 Artifacts

Fig. 9 - Inventory of Artifacts from the Albertson Site #1.

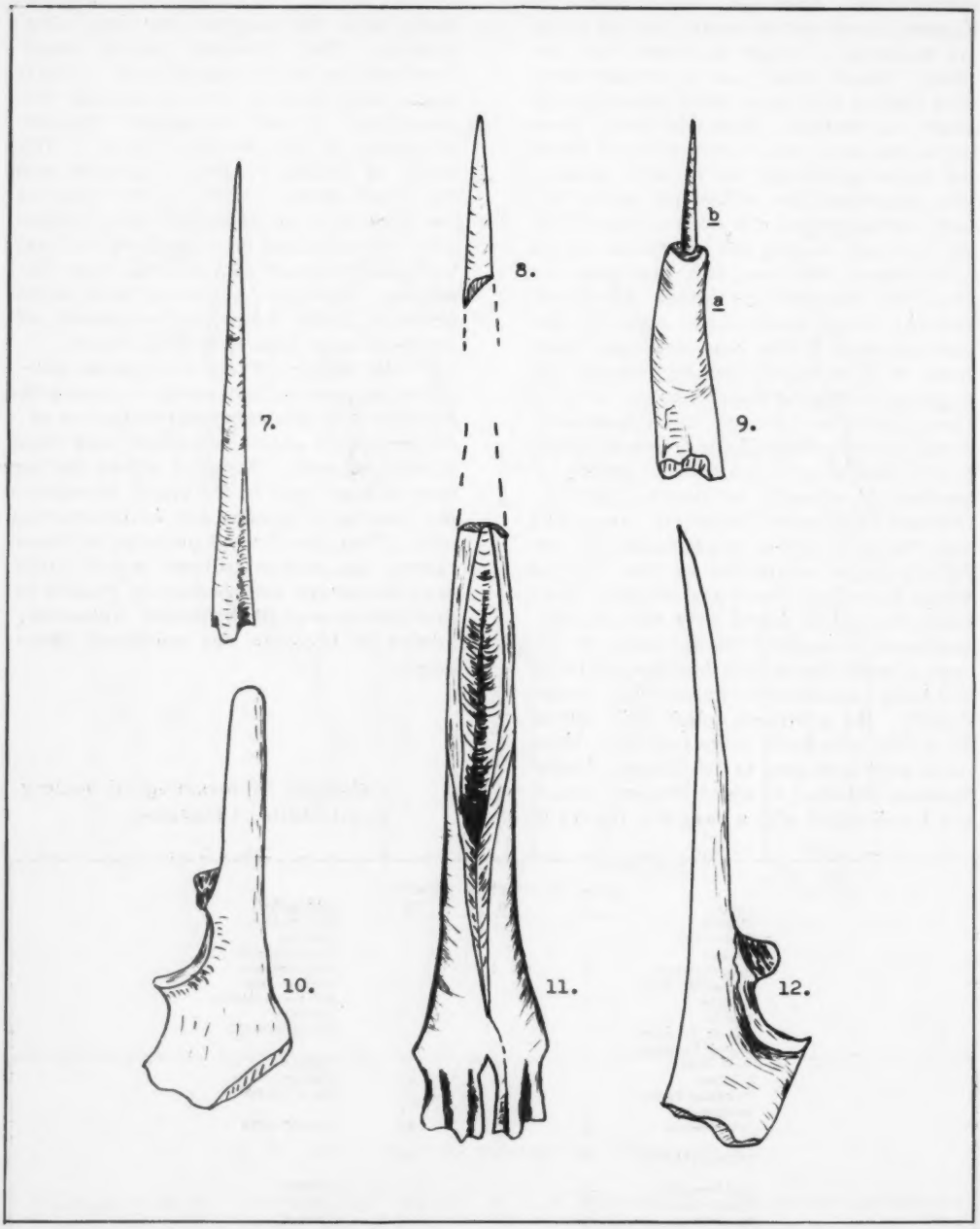


Fig. 10 - Bone Artifacts from Stratum III, Albertson Site

7 = Bone awl made from split animal bone.
8 = Fragmentary bone awl.
9 = Unusual tool consisting of antler section with sawed and rounded end perforated to receive base of small "needle-like" bone tool.
10 = One of 2 flaking tools made from ulna bone of deer.
11 = Bone awl of large size made from Deer long bone, tip missing.
12 = Awl made from ulna bone of deer.

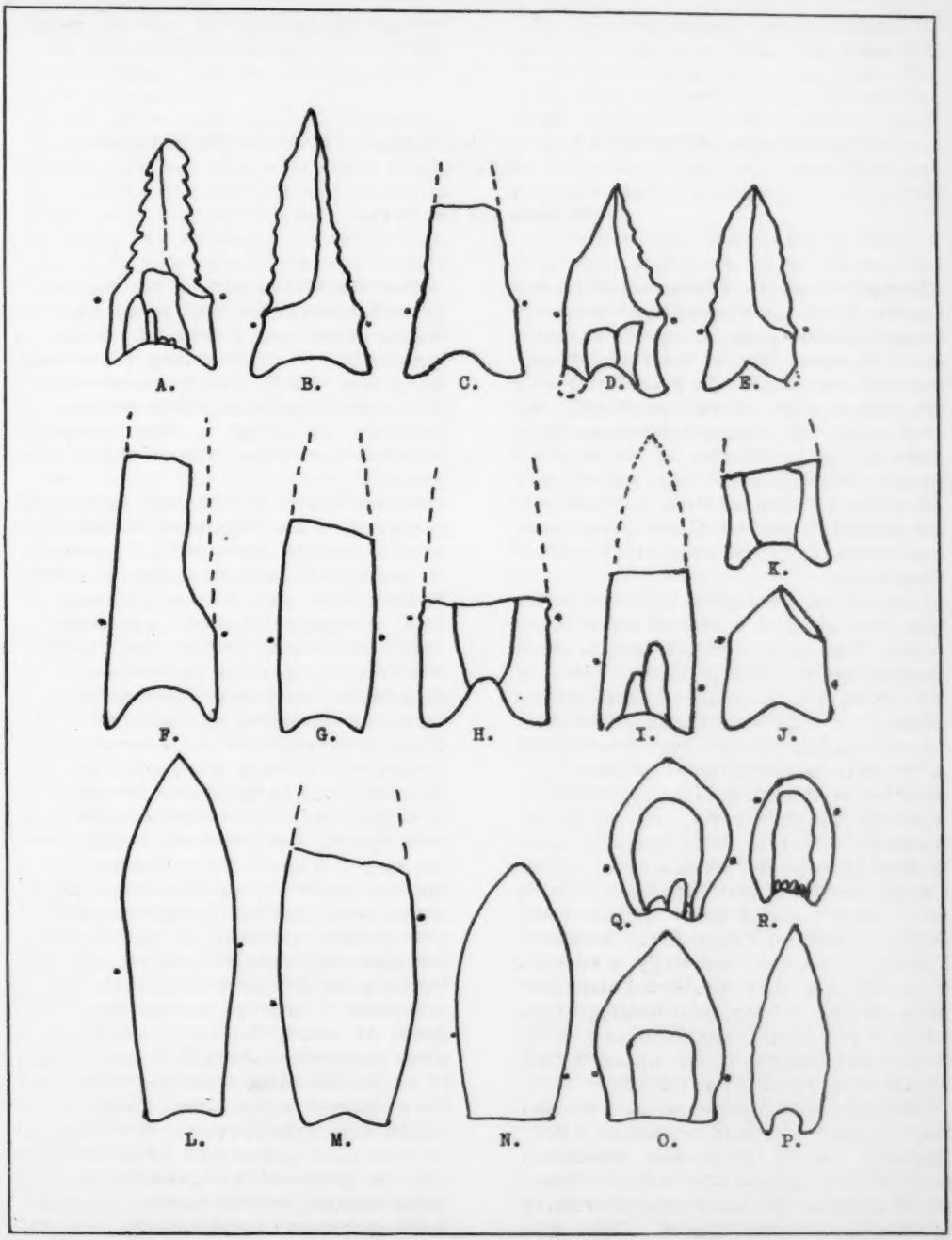


Fig. 11 - TYPOLOGICAL INFLUENCE OF PLAINS AREA IN NORTHWEST ARKANSAS, NORTHEAST OKLAHOMA AND SOUTHWEST MISSOURI. SITE NUMBERS: A=23/C3S, B=3/4G3, C=3/4G4, D=34/1-1, E=34/1-1, F=3/4G4, G=23/C3S, H=34/1-1, I=3/4S3S, J=34/1-1, K=34/1-1, L=34/66-1, M=3/4S3S, N=23/C3S, O=23/RHC, P=MY54/34, Q=3/4K6, R=34/11-3. Dots show extent of grinding. Fluting and Beveling shown.

CHAIN MAIL AND OTHER EXOTIC MATERIALS FROM SOUTH CENTRAL KANSAS

Kenneth and Ina Terry

Along the eastern tributaries of the Arkansas River in Kansas are scattered numerous aboriginal village sites, which were occupied by a semi-sendentary, horticultural people who probably lived in grass dwellings. More specifically this area along the Arkansas River includes some of the tributaries of the adjacent Smokey Hill River drainage and those of the upper Cottonwood River. These latter extend from the Great Bend area southeastward to the southern border of Kansas.

Limited archaeological field work has been conducted at a few of these many sites. The earliest report was the work carried out by Udden in 1881 to 1888, at the Paint Creek site, in McPherson County. In 1934 the Nebraska State Historical Society, under the direction of A. T. Hill, spent 4 days in further excavation at this site. The United States National Museum party, conducted by Waldo R. Wedel in 1940 worked 3 sites in Rice County, the Malone site in Cow Creek, the Tobia and Thompson sites on Little River, and 3 sites farther to the east and south on Walnut River in Cowley County. After a careful study of samples from all these sites, Dr. Wedel classified those in Rice County as belonging to the Little River Focus, and those in Cowley County as belonging to the Lower Walnut Focus of the Great Bend Aspect.

Within the past several months, we have been in the process of preparing a preliminary report of surface materials from an unexcavated site in Rice County, which exhibits the main characteristics of the Great Bend Aspect. This site, commonly known as the "Saxman Site" has been a prolific source of specimens for hunters for over 50 years. The site extends for more than a mile on opposite sides of Cow Creek, near the small town of Saxman, Kansas, about 10 miles southeast of the Malone site. This location is 12 miles south of the Thompson and Tobias sites. A portion of the site is susceptible to overflowing flood water from Cow Creek. This has resulted in the gradual deepening of a surface depression, or slough in which numerous artifacts have been exposed through the years.

During March of 1960 such an overflow occurred. This resulted in considerable erosion and the exposure of the contents of numerous midden caches. Surface hunting took on a new perspective. A local newspaper carried an article on a spectacular find, which unfortunately, was followed by some unsystematic digging by numerous relic hunters arriving from various parts of the state. This situation altered our plans for a limited systematic salvage program. On May 3rd, while photographing the slough area, a large pottery sherd from a small Caddoan vessel was noted protruding from the side of a small gully 2 inches below the top surface. As this find was not anticipated, and not being equipped for even minor excavating, a near-by bison rib bone was used to remove the soil surrounding this interesting find. During the removal process another object was noted at nearly the same level and in close proximity. At first it was thought to be decomposing sandstone which had been exposed to fire. Upon closer examination this object proved to be a fragment of chain mail. Indications were that more than one fragment was present, but time being limited, and not having the necessary equipment to undertake the removal, we made a decision to postpone further excavation until the following day. The days that followed proved to be very discouraging. Rainfall was heavy, and the area where the chain mail was located was completely submerged, being

located at one of the deeper points in the bottom of the slough. The water receded slowly, and the drying out process was retarded.

On the 8th of May removal of the remainder of the chain mail was completed. However, this was done with regret as the soil was not sufficiently dry to permit a proper excavation at the time. Any further delay did not seem advisable, because of the digging previously mentioned.

The first step in the removal of the chain mail was the careful elimination of all excess dirt from around the specimen. Its position and extent was then determined. Measurements were taken and photographs made at various stages of excavation.

The depth, measuring from the ground surface to the base of the specimen was 10 inches. Two inches of silt has been deposited on the surface through the recent rains. The chain mail was in a single loaf-shaped mass. This made it a simple procedure to slip a metal sheet underneath and lift it free.

The measurements after removal, before the matrix was entirely removed, were: 17 inches, maximum length, 13 inches wide at the broadest point, and a maximum height of 6 inches. Due to the wetness only enough soil was removed from around the chain mail to excavate it. Other refuse materials noted in the removed soil indicated that this pit was part of a midden.

At a horizontal distance of approximately 6 inches from the chain mail and 2 inches above the pit floor was a crude quartzite grooved hammer, and 2 lumps of baked clay. These clay fragments of house wattle were irregular in shape. One measured 65 by 27 mm, the other 25 by 15 mm. The impressions of straw were visible on their surface. Wedel reports similar masses of burnt clay wattle at the Tobias site (Wedel 1959: 222-223, 226-227).

The specimen of chain mail, for the most part, was badly oxidized. Its location within the slough and at one of the deepest points would, perhaps, account to some extent for its condition, but natural corrosion of metal during the time it was buried was probably the greatest factor in explaining its poor state of preservation.

The description and measurements of the mail rings were made with some difficulty because of this oxidization. The chain mail was made of interlinking iron rings, 4 rings interlinking within each ring, hereby producing a flexible armor. All rings were similar to each other and measured approximately 1/2 inch outside diameter.

Chain mail has been reported from 2 other sites in Kansas: at the Paint Creek site in McPherson County by Udden in the later 1800's (Udden 1900, Frontispiece, p. 66), and 3 years ago another fragment was found by Ralph Bell and Robert McReynolds of Salina, Kansas, and at the Thompson site in Rice County by Wedel in 1940 (Wedel 1942, pp. 7-8; Wedel 1959, pp. 86, 301, 303, 319-320, and 579 plate No. 50). This chain mail from the Saxman site equates in material and construction with these earlier finds. However, the quantity found exceeds all the others by a considerable amount.

We presented the chain mail to the Museum of Fort Hays Kansas State College. Eugene R. Craine of that institution has advised us that it appears to be a complete breast-plate, whose poor state of preservation makes its separation into folds impossible.

Our studies of accounts and reports, strongly suggest that the chain mail is of Spanish origin. The Oklahoma Archaeological Salvage Project of the University of Oklahoma, Norman, Oklahoma, and the State Geological Survey of Lawrence, Kansas have assisted us in identifying and locating the source areas of much of the material from the site. A number of exotic materials occur that substantiate a relationship with the Southwest. Examples are: clay and stone pipes of the straight, tubular, cloudblower variety that are typical of the Pueblo culture in both prehistoric and historic horizons. Present, though few in number, are subspheroidal and disc-shaped turquoise beads, which were probably manufactured in the Southwest and traded into the Plains area. Obsidian is represented by a few artifacts, and by 50 unmodified fragments. Pueblo painted pottery sherds dating from the last half of the 15th century to the middle of the 17th century occur in small amounts. Either direct or indirect influence is indicated from 3

micaceous pottery sherds that have highly polished black interiors, produced by the scraping technique. A small per cent of artifacts is manufactured from basalt possibly obtained from the Southwest or the Rocky Mountain area. Finally, a large per cent of the chipped stone artifacts is of "Alabates Flint", samples of this material were identified by Oren F. Evans and J. B. Shaeffer. "Alabates Flint", a scilicified or agatized dolomite, is found along Alabates Creek north of Amarillo, Texas. (Shaeffer 1958).

Analysis was made of the 6 major materials from the Saxman site with interesting results. Of 565 plano-convex end scrapers 162 of them or 28.7% are of pink, or pink and grey banded chert which extends from the Maple City, Kansas area southward into Kay County, Oklahoma. One hundred and twenty-four or 21.9% of grey chert was obtained from the Flint Hill region of Kansas. One hundred and twelve or 19.8% was of alabates flint from the Amarillo, Texas area. Eighty five or 15% was of chert identified as "Novaculite" from Arkansas. Fifty three or 9% was of a yellow, grey and white mottled chert from an unknown source. Twenty nine or 5% was of yellow jasper from the northwestern part of Kansas, and in limited amounts from McPherson County, Kansas.

The high per cent of "Alabates flint" occurring at the site strongly suggests actual visits made to the quarries rather than an obvious trade relationship as in the case of the obsidian, turquoise, painted pottery, and other above mentioned articles.

We now wish to direct attention from the Southwest to the South and Southeast, with which further affiliations seem possible. We have previously mentioned that novaculite from Arkansas is represented in 15% of the plano-convex end scrapers and also that pottery sherds constituting about 1/3 of a small Caddo vessel was found with the chain mail. This sherd was examined by Robert Bell and Clarence Webb. Both agreed it represented Caddoan pottery of the type, Taylor Engraved. The characteristic interlocking scroll design occurs in several foci of the Fulton Aspect all of which are proto-historic Caddoan cultures of about 1400 to 1700 A.D. All those focii are located along the Red River and its tributaries in southeastern Oklahoma, western Arkansas, and northeast Texas, and center in the Texarkana area. Other surface gathered sherds which appear to be Caddoan engraved sherds are 2 in which curvilinear engraving is present. One nearly complete and partially restorable shell tempered vessel of the coiled technique was obtained by a local collector from the slough area this last spring. The coil method of manufacture is further substantiated by shell-tempered, as well as cord marked and red slipped sherds which were personally gathered from the site. Unfortunately, in early reports the method of manufacture is not clearly indicated and there is no mention of coiled pottery in the Great Bend Aspect sites. This being the case we must look elsewhere for the origin of this specific technique. The coiled, shell tempered vessels from Saxman are similar to those of Nocona Plain of the Henrietta Focus of north central Texas except that both are coiled and shell tempered. However, vessels from the Saxman area are often equipped with handles which are rare or completely absent in the Henrietta Focus. (Krieger 1946: 109-110, 139, p. 4 & 5).

A single bead manufactured from a fossil crinoid segment was found at Saxman. These according to Krieger are a listed trait of the Henrietta Focus. (Krieger 1946, 106, 117, 140, pl. 9).

Raw materials obtained from the northeast are Siouan quartzite from the glacial erratic in northeast Kansas, and catlinite from Minnesota. The quartzite seemed to be preferred for making grooved mauls, and the catlinite was used for pipes, pendants, and disk shaped beads.

This completes a very brief description of the chain mail and other exotic materials from Saxman. A much more detailed report of the surface gathered materials is forthcoming, and will be published by the Kansas Anthropological Association.

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Kansas Archaeological Society
Fort Hayes, Kansas

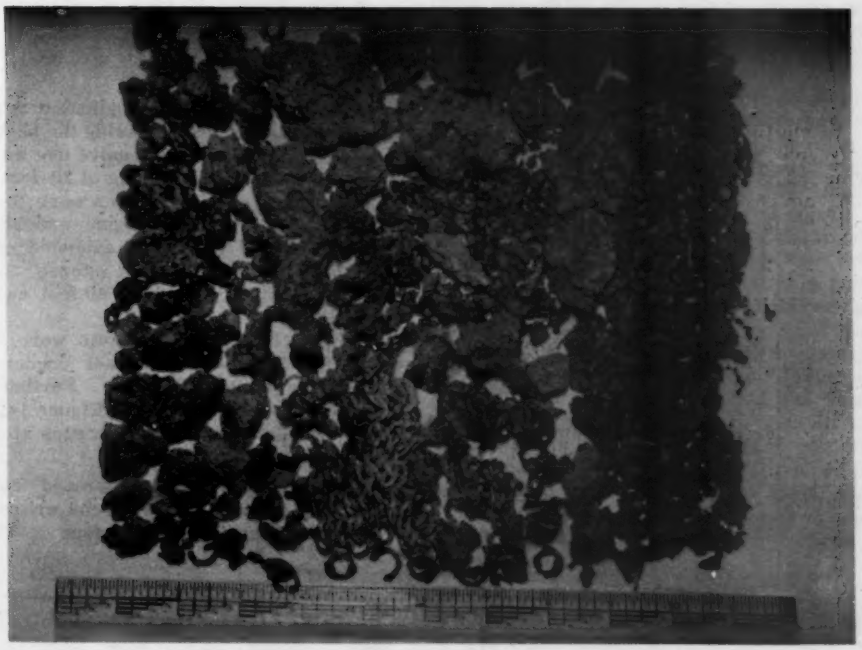

Fig. 12 - Chain Mail Fragment from the Saxman Site, Kansas

SIX SITES ON THE FORT SILL MILITARY RESERVATION

James B. Shaeffer

PIG FARM CROSSING SITE, CM-26

Background

This site was excavated during the spring and summer 1960. During the spring, work was begun by an extension class of the University of Oklahoma consisting of military and civilian personnel enrolled from Fort Sill plus a few interested persons from Lawton and Chickasha.[1] Excavation during this period was limited to Saturdays and extended over a 10 week period. Later in the summer the additional 10 days spent on this site was supported by National Park Service funds.

The Site

The site is located among large oak trees along the east bank of East Cache Creek. This stream is a tributary of the Red River 40 miles to the south and is joined about a mile north of the site by Medicine Creek, the main east-west drainage of the Fort Sill area. At the present time the channel of the creek cuts deeply into the banks on both sides of the stream. The drop from the top of the bank to the stream channel is 15 to 20 feet.

The area is well wooded, and the main vegetation consists of large oak trees interspersed among a very heavy secondary growth. A considerable amount of brush, and in summer vines, adds to the tangle. The oak trees which cover the site now are perhaps a hundred years old. They are 4 to 5 feet in diameter and had obviously grown in the site after its earlier occupation.

The site derives its name from the nearby ford of East Cache Creek, a few hundred feet to the south of the site. This crossing is evidently an old one where a natuaral slope to the river, together with a firm bottom in the stream channel, permitted easy crossing of the high banks on either side. At this point on the east bank, a low ridge, probably much earlier a bluff along the creek, narrows the first terrace so that it is only several hundred feet wide. The bluff prehistorically must have offered both shelter from the wind and sun as well as an inconspicuous location for a campsite.

The occupation area extends from the vicinity of the ford on the south tc a distance of perhaps 300 feet to the north where the creek bends to the northwest. The occupation area follows a low ridge which parallels the slight meandering of the stream. It is probable that this slight rise on which the site occurs resulted from earlier flooding and washing when the stream was at high flood. The creek is still subject to such periodic flooding at approximately 20 year intervals.

Excavation Procedure

The occupation area indicated by surface evidence as probably having the best preservation and the most intensive use was blocked off by stakes into a series of 20-foot squares. Four rows of these stakes were designated, A, B, C, and D. These extended north while rows 1 to 6 were extended east, thus griding the areas of most intense occupation which was located about 40 feet east of the creek bank.

Four-foot square test pits were begun in the lower left or southwest corner of each block beginning with A/1. Further testing was done as indicated in Figure 14. Except for buffalo bone and flint scraps all of these test pits were negative.

Concurrent with the organized test pitting, excavation was begun in areas where features projected above the surface. The most

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[1]The Archaeological Field Class consisted of the following persons: Capt. Theodore L. Bradley, USA, Capt. Lewis W. Haskell, USA., Lt. Col. John T. Hoyne, USA., Mrs. Henry P. Lynch, Mrs. Helen Marjorie Marler, Capt. James F. Meade, Mr. David Modisett, Miss Elizabeth Anne Powell, Lt. Col. Philip M. Turner, USA, Mr. Clarence P. Wilson, and James A. Marler, Assistant Director of the U. S. Army Artillery and Guided Missile Center Museum. Mr. Gillette Griswold, Director of the Museum also materially aided the organization and conduct of this field program.

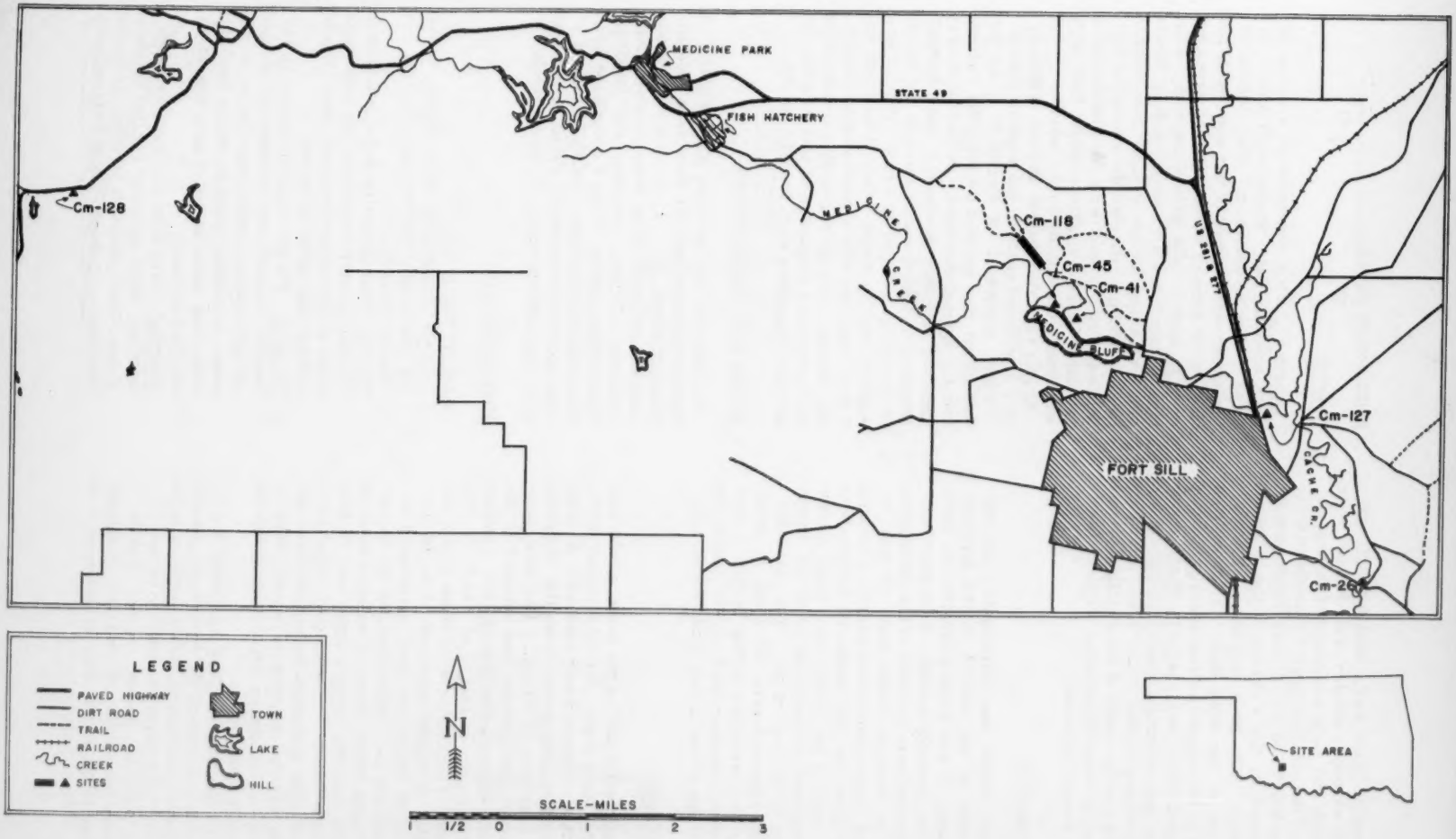

Fig. 13 - Site Locations in the Ft. Sill Area

prominent of these was a hearth which was partially exposed; another was buffalo bone (#1) which had been encountered during the survey of the previous year. (Shaeffer 1960b; 7) Areas No. 2 and No. 3 were subsequently encountered in the widening of the original test trench. The first post holes were also picked up at the time when the trench was carried to the south. When the significance of the post holes was realized, digging was begun in that direction resulting in the gradual uncovering of the house area. Random test pitting to the south of the dwelling proved fruitless, principally because frequent flooding had eroded this area.

The Living Area

The area which was investigated had survived most of the effects of the military operations. It was located towards the north end of the occupation area. Here were concentrated the main features of the excavation, part of a circular house about 30 feet in diameter, an exterior stone hearth, a cooking and/or cache pit plus scattered buffalo bone debris. All of the latter were found outside and to the north of the house circle but within a radius of 20 feet of it. The artifacts listed in Figure 15 were all found in proximity to the structure either within 5 feet of the north exterior wall or just inside the circle within a foot or two of the inside wall.

House Circle

Approximately half of the house circle was uncovered at a depth of 6 to 8 inches below the surface. The evidence consisted of some 10 post holes arranged at irregular intervals over a diameter of 30 feet. The best preserved post hole pattern was obtained in the northwest section where 6 holes 3 to 4 inches in diameter were arranged at 2 to 2 1/2 foot intervals. These holes were from 1 to 4 feet in depth. A blank space of 12 to 14 feet on the north side of the circle intervened between the set of 6 post holes and the second set of 4 post holes. These latter were more irregularly spaced, being a little over 5 feet from each other. These post holes were rather shallow and much more difficult to define. In addition several secondary interior post holes were located 2 to 3 feet within the circle wall of the house.

No evidence of a fireplace was found but the other half of the house had been badly eroded and perhaps disturbed by military encampment. Obviously, this negative evidence is not conclusive. Since the greater number of artifacts came from the vicinity of the 2 post groupings, the break in the circle may be assumed to be some sort of entryway.

Hearths

Hearth #1. This consisted of a circle of very friable, flat, sandstone rocks 3 to 3 1/2 inches in diameter. The bottom of the hearth was formed of flat rock while the sides were formed of these stones layed up several layers thick around the edge. This type of hearth has also been noted on Medicine Creek and as far west as Blue Beaver Creek. While a considerable amount of carbon was found mixed with the disintegrated sandstone in the fill, nothing except flint chips was found in proximity to the hearth.

Hearth #2. This hearth showed originally as a discolored earth in the shallow trench 10 feet northwest of Hearth #1. As the excavation was carried deeper, the carbon became more pronounced. Definite pieces of charcoal and fire blackened and thermal-factured rock were encountered at the bottom of the pit at a depth of 3 feet. The pit was slightly oval in shape, about 4 feet wide and 5 feet long, and with a bowl-shaped slope to the bottom. The pit fill contained some flint and occasional fragments of mussel shell. No artifact fragments were found in the fill.

Buffalo Bone Concentrations

As indicated on the site plan (Fig.13), 5 concentrations of buffalo bone were located. Concentrations Nos. 1, 2, and 3 were apparently all parts of the same animal. They consisted of ribs, scapula, and forelegs. Concentrations Nos. 4 and 5 could have been from different animals. Small quantities of bone occurred everywhere but no large bones were encountered within the house circle.

Material Culture

Adze (1) Fig. 17 (3)

Outline: Rectangular with slightly incurving sides; one end straight; cutting and slightly concave.

Profile: Flat underside and turtle-back on top side; center relatively flat with slight slope at top and pronounced slope toward cutting edge at the blade end.

Chipping: The rectangular blank was percussion chipped and secondarily chipped on the concave blade end. There is also some secondary chipping along one side indicating possible secondary use as an unhafted scraper.

Material: Grey flint with dark and light mottling which appears similar to some Texas flints although it gives an initial impression of Boone chert from eastern

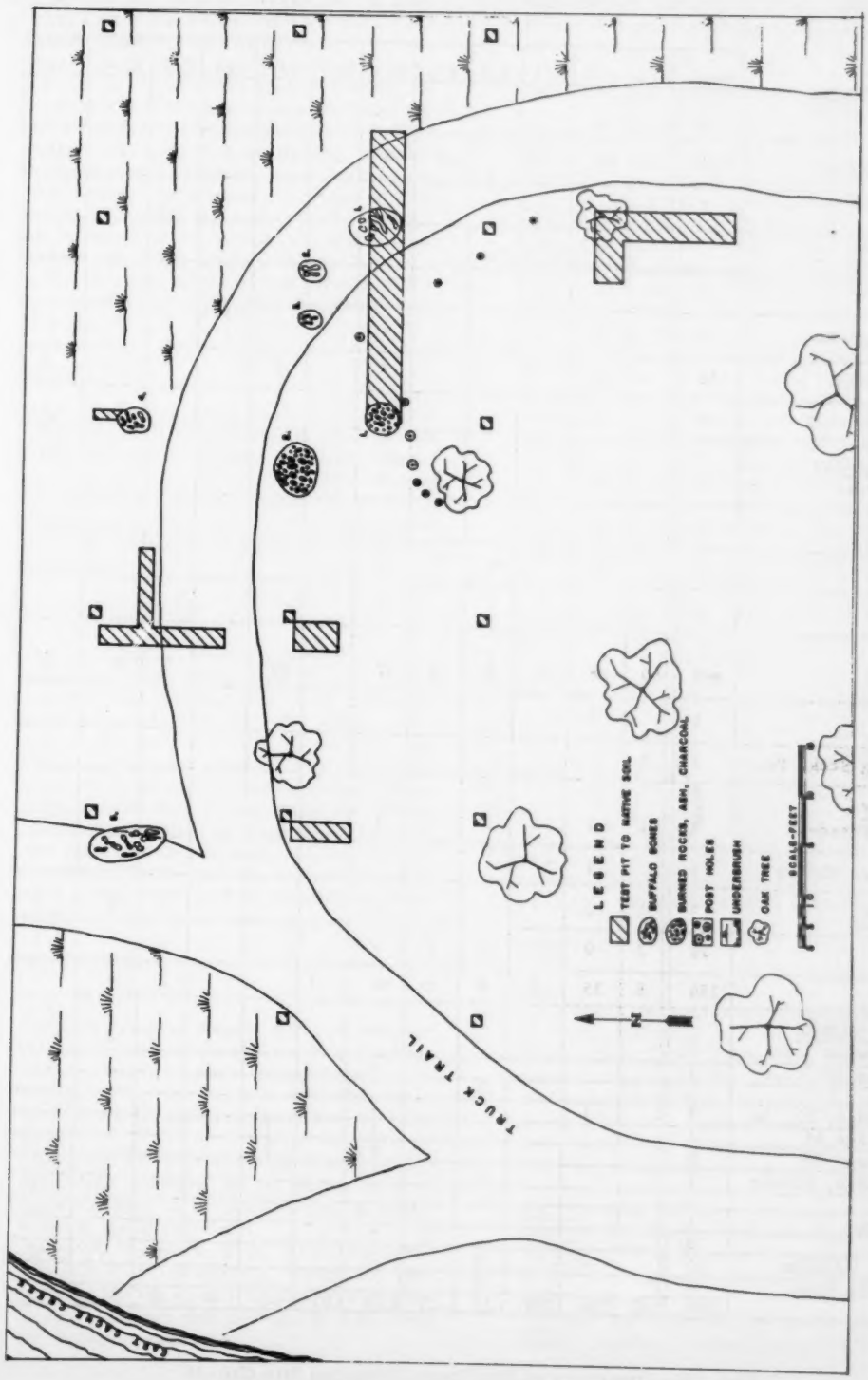

Fig. 14 - Pig Farm Crossing Site, Cm-26

Item	Total	A/3	A/4	B/1	B/2	B/3	B/4	C/2	C/3	C/4	C/5	Surf Gen.	N of Site
STONE CHIPPED													
Adze	1		1										
Chips, flint	202	5	69	1		10	58	3	22	7	3	13	14
Chopper	2	1										1	
Drill			1										
Knife	2		2										
Proj. Points	14	1	5	1		1	1		1	Dart 1		3	
Point Frag.	12	1	15				5		2			2	1
Scraper	7	1	2				2					1	1
STONE GROUND													
Handstone	5		1		1	1	1		1				
Maul	1		1										
Mano	3		2				1						
Metate	1						1						
BONE													
Animal	390	40	88	118	9	6	37		50		1	19	22
Bead	1		1										
Digging Stck. Pt.	1	1											
POTTERY													
Plain Sherds	4	1	2				1						
Indented Sherds	1		1										
HEMETITE	13	1	6				2				1	2	1
SHELL	16	3	9		1	1	1						1
ROCK	154	8	35	1	8	5	80	7			1	9	
WHITE CULTURE													
Bead, wood	1											1	
Can opener	1						1						
Buckle	1				1								
Cartridge, 22, 32	2		1				1						
Cartridge 45	2						1		1				
Cartridge 30	9						6		2		1		
Cartridge, Minnie	1				1								
Coin	1												1
Earring	1												1
Glass	8					1	7						
Metal, unident.	15		2		4		7				1		1
Umbrella Stay	2				2								
	884	62	236	120	27	25	213	10	80	9	8	51	43

Fig. 15 - Inventory of Pig Farm Crossing Site Cm-26

Oklahoma and western Arkansas. In any event this is not a local flint;the material, if not the implement, is intrusive.
Function: With its flat face, curved back, and curved blade, this tool is similar in appearance to the metal adze blade fastened to the end of a V-shaped wooden handle which was used for defleshing buffalo hides during the historic period. However, this present implement, because of its thickness, could also have been used as an unhafted hide scraper. Dimensions: Length, 10.7 cm.; width, at top, 7.7 cm.; width at blade, 7.0 cm.; minimum width at center, 8.6 cm.; average thickness, 2.5 cm.

Chopper (2)

Dark, natural-shaped river stones which have been split by percussion; one side has been percussion chipped on both edges, probably by use. This tool could also have been used as a scraper though the unground character of the percussion work would seem to indicate chopping as a primary function.

Drill (1) Fig. 18 (2)

This is a central fragment having an elongated beveled shape with a flat back, rounded top surface and with unifacial secondary chipping along the sides. The size of the flint is small. Therefore, its use as a knife was possibly only secondary whereas in the specimens described under Knife, their larger size suggests cutting rather than drilling as the primary function. The material in this case, a type 22 flint (Shaeffer 1960b: 59) is a light grey or dark cream color and is probably of local origin.

Knife (3) Fig. 17 (8)

Type 1
Outline: Lozenge shaped with one end narrowing to a point; the other end expanding and then narrowing to a rounded end.
Profile: Flat on one side and the other side more irregular and thicker at both ends.
Chipping: All-over chipping on both sides; secondary chipping on all edges; a pronounced bevel at the pointed end; a slight bevel at the rounded end.
Material: Appears to be a Texas flint, possibly Alibates variety, though the red mottling on the cream to grey background is more maroon than is found in flint from the Amarillo quarry.
Dimensions: Length, 11.8 cm.; maximum width, 4.5 cm.; average thickness, .5 to .6 cm.

Projectile Point (14 identifiable) Fig. 18 (5-11)

Type 1: Washita River type (Bell 1959: 98).
Type 2: Fresno type (Kreiger 1956: 498).
Type 3: Similar to Type 2 but upper third of point serrated on edges.
Type 4: Diamond shaped; fine all over flaking both sides; well made and well balanced; made of a dark, non-local flint. Length, 3.3 cm.; width, 1.0 cm.; thickness, .2 to .3 cm.
Type 5: Base only; a small stemmed type of local flint. Width of stem, .5 cm.
Type 6: Dart type (Shaeffer 1960b 51); quartzite; thick, crude, percussion work and no secondary chipping. Dimensions, 4.0 cm.; maximum width above stem, 2.0 cm.; maximum thickness above stem, 1.0 cm. Possibly intrusive as is scraper, Type 5 from nearby quartzite site to north along East Cache Creek. See Fig. 18 (3).

	Block Locations						
	A/3	A/4	B/1	B/3	B/4	C/3	C/4
Type 1		x	x		x	x	
Type 2	x	xxxx					
Type 3							
Type 4				x			
Type 5							
Type 6							x

Fig.16 - Projectile Points Locations

Scraper (7)

Type 1 - Fig. 17 (5) (6)
Two, small, shield-shaped thumb scrapers of local material; one of quartzite; the other, flint, Type 13 (Shaeffer 1960b: 59); natural shape with flat underside and turtle-back; secondary chipping unifacially along all sides. Dimensions, length 2.1 cm. to 3.3 cm.; maximum width, 1.9 to 2.3 cm.; thickness, .5 cm. to .6 cm.

Type 2 - Fig. 18 (1)
Outline: Triangular with flat edge at the wide end. This form is the natural shape of the flint splinter rather than arrived at by intention.
Profile: An inverted V in profile with ridge resulting from natural cleavage;

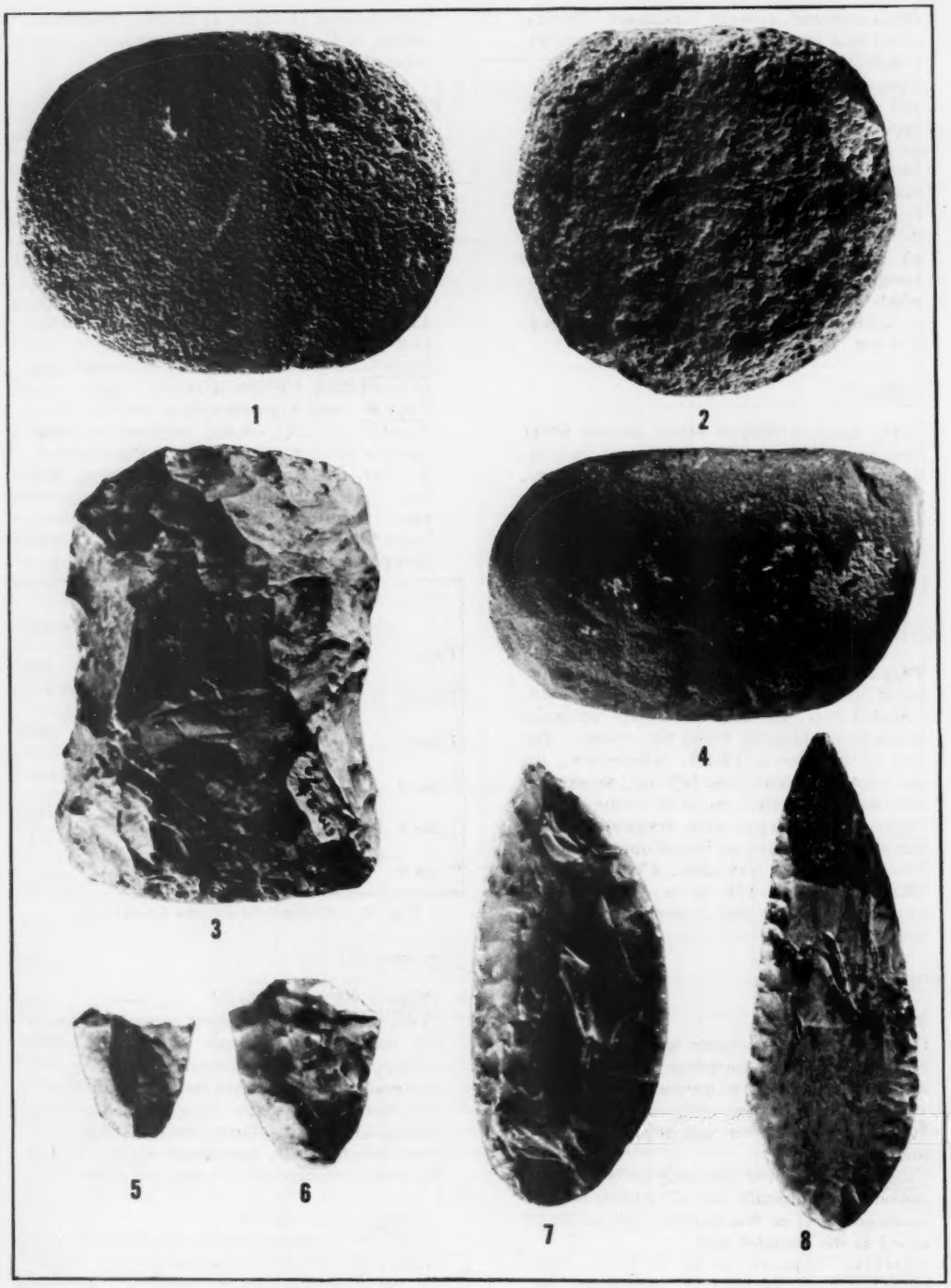

Fig. 17 - Artifacts, Cm-26. (1) Mano, Type 1 (2) Handstone (3) Adze (4) Mano, Type 2, (5) (6) Scraper, Type 1 (7) Scraper, Type 3 (8) Knife.

underside is only relatively flat as it shows considerable undulation.
Chipping: Secondary chipping along two edges of lower 2/3 of splinter; opposite edges are roughly beveled.
Material: A good quality, dark, smokey, local flint. Though this is the most common type found on all pottery horizon sites in this area, it appears to be similar to types of flint used in north central Texas.
Function: The first impression is that of a drill. However, the size and the beveled edges make the form similar to the Type 2 knife. The additional function of a drill was probable.
Dimensions: Length, 8.2 cm. (point missing); width at upper end (est.) 4.0 cm.; thickness along ridge, .5 to .9 cm.

Type 3 - Fig. 17 (7)
Outline: Circular to leaf-shaped.
Profile: An off-center ridge which results from beveling; however, there is no corresponding bevel on the opposite side; underside is flat but material has an upward curve at the pointed end.
Chipping: Confined mostly to the ridges though there is some chipping on the flat underside.
Material: Same as Type 2, a translucent, dark, greyish flint of the Texas type.
Function: While the curved edge could have been used for cutting purposes, the straight edge could have functioned very well as a scraper because of the location of the bevel close to the edge of the blade.
Dimensions: Length, 9.0 cm.; maximum width, 4.0 cm., thickness, .8 to 1.0 cm.

Type 4 - Not Illustrated.
A small, thick, circular-shaped, quartzite scraper with the thickest part to the rear of the blade instead over the blade as in Type 1. Since this specimen was a surface find, it may not be associated with this type of site but with an earlier horizon located 1/2 mile to the north on the east side of East Cache Creek. On these earlier sites quartzite is the predominant material. (Shaeffer 1960b.)

Type 5 (4) - Fig. 18 (4)
Random flake scrapers; 3.5 cm. to 5.0 cm. in maximum dimensions and of variable thickness (.6 cm. to 1.9 cm.). Materials; 3 of quartzite, 1 flint, Type 22. The latter specimen was found just northwest of the house circle.

Ground Stone

Handstone (5) Fig. 17 (2)
A heavy, natural, ovoid boulder of rhyolitic sandstone; turtle-backed with underside only roughly flat but showing some use planes. Possibly used as a multipurpose tool, as a muller, chopper (some edges battered), hammer and pounder.

Maul (1) - Fig. 18 (18)

A small, full-grooved, oval-shaped sandstone with one end larger than the other. Both ends are rounded. However, from the extreme friability of this sandstone (it is sandy to the touch) this would appear to be a ceremonial rather than a functional implement. It is even possible that despite the maul-like appearance, it was not so used.

Mano (3)

Type 1 - Fig. 17 (1)
Flat, thin, and oval in shape, this is quite a symmetrical mano made of porous limestone. One side is quite flat and the other has a very slight convexity. It is the latter side which shows wear. Dimensions: Length, 13.0 cm.; width 10.5 cm.; thickness, 1.9 cm. Another fragment of the same type appears to be thicker (3.0 cm.) and is made of a very friable sandstone.

Type 2 - Fig. 17 (4)
An elongated turtle-back shape of fine sandstone which is again very friable. Dimensions: Length (est.), 12.0 cm.; width, 7.0 cm.; thickness along ridge, 3.4 cm.

Metate (1) Fig.18 (19)

Fragment of a thin, slab metate showing pecking on both surfaces. Thickness of 2.8 cm.; the material is of a friable, fine grained,grey sandstone.

Bone

Bead (1) Fig. 18 (13)
A short (1.3 cm.), small (.8 cm. thick), hollowed bone bead with rounded ends; well polished. Type of bone not determinable.

Digging Stick Point (1) Fig. 18 (17)
A heavy fragment of split buffalo bone which has been rounded at one end and secondarily worked; sides are parallel and show no signs of wear. There is a slight indentation on the upper, unfinished part where the bone was probably lashed to a stick. This implement fastened to a short stick could also have been used as a scraper. Dimensions: Length, 10.4 cm.; maximum width, 3.4 cm.; maximum thickness 1.0cm.

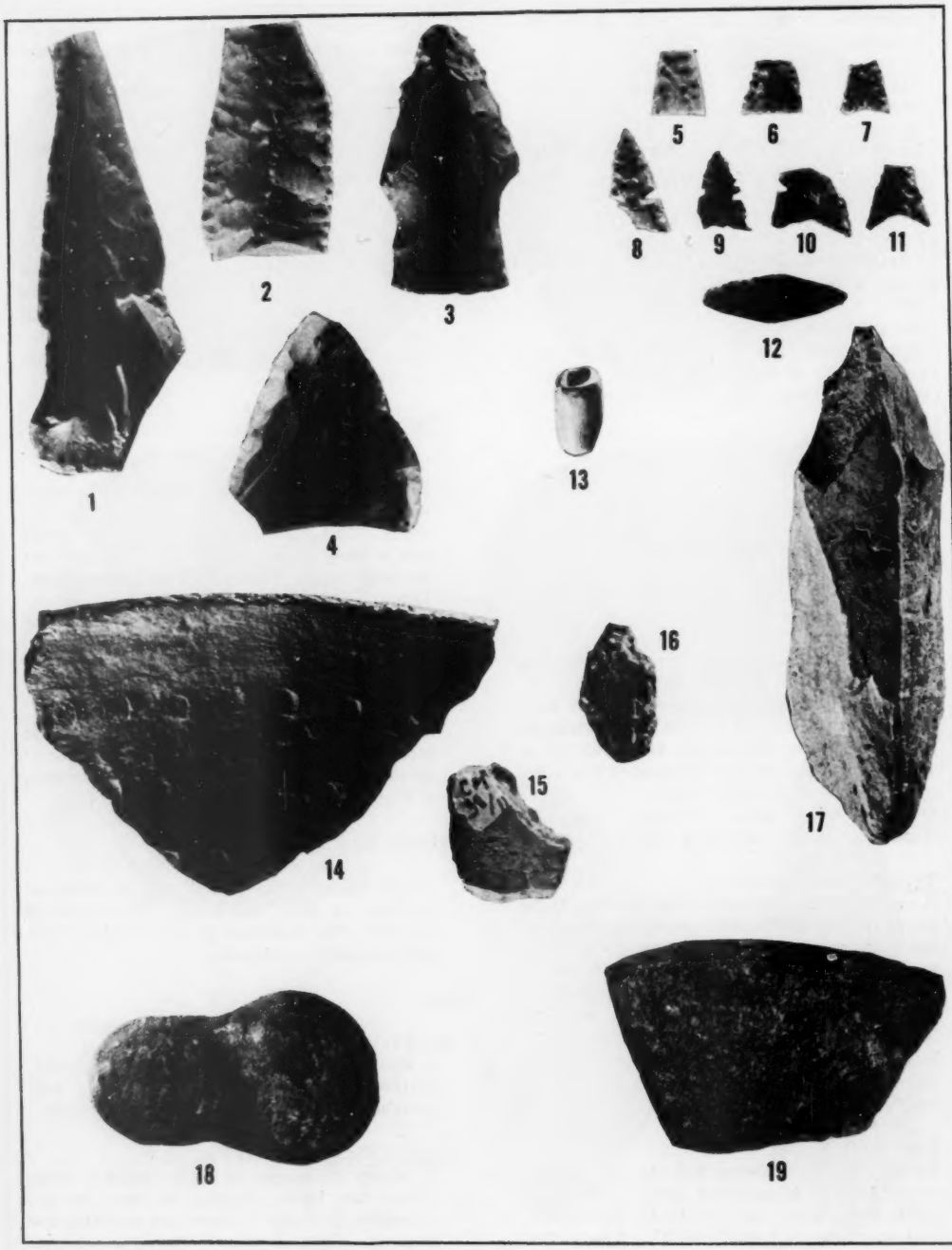

Fig. 18 - Artifacts from Cm-26. (1) Scraper, Type 2 (2) Drill (3) Projectile, Type 6, (4) Scraper, Type 5 (5-7) Projectile, Type 2 (8-10) Projectile, Type 1 (11) Projectile, Type 3 (12) Projectile, Type 4 (13) Bone Bead (14) Pottery, Type 1 (15) (16) Pottery, Type 2 (17) Digging Stick Point (18) Small Maul (19) Metate Fragment.

Pottery

Type 1 (1 sherd) Fig. 18 (14)
A black rim fragment of a plainware sherd showing heavy incrustation on the interior. The rim is outcurving and marked on the lip by a series of continuous cross-hatchings. Decoration on the exterior is a series of square punctations about 1.0 cm. apart; rows are 1.0 cm. to 1.5 cm. apart. The temper is sand; small quartz grains glint on the surface under light; wall thickness varies from .5 cm. to .7 cm.

Type 2 (2 sherds) Fig. 18 (15-16)
A plainware with sand temper; in color varies from yellowish to reddish; temper is fine to coarse sand; thickness .6 cm. to .7 cm.

Type 3 (1 sherd) - Not Illustrated
A plain blackware; quite thin (.4 cm.) and hard; fine sand temper; exterior fairly smooth.

Hematite (12)

Hematite was found in fairly large chunks from 2.5 cm. to 5.5 cm. in largest dimensions. In color the mineral varies from a brick to a maroon red. No pulverized or cake hematite was found. Most of the smaller pieces under 2.5 cm. show signs of wear from rubbing

Shell (16)

The mussel shell appears to be of a single type and probably collected for food prehistorically from East Cache Creek. No specimens were found which showed perforations or other use as ornaments.

Rock (154)

Rock mostly concentrated in the 2 hearth areas was firecracked. Most material was predominantly limestone with some sandstone and occasional pieces of porphoritic rhyolite which compose the spine of the Wichita Mountains in this section.

Animal Bone

The great majority of the splintered and split bone found scattered about was buffalo. In addition a few bones were found of rabbit, deer, and rodents.

White Culture (44)

The material listed in the site inventory (Fig. 8) is of two general periods; the one in the late 1800's and early 1900's and the other after 1915. The first group includes Glass Type 4 and Porcelain Type 2 (Shaeffer 1960b: 29). The second group includes probably all of the metal objects as well as the wooden bead or fishing bobber.

BORROW PIT SITE, CM-127

Background

This site was reported to the U.S. Army Artillery and Guided Missile Center Museum at Fort Sill in the spring of 1960 by a member of the Museum staff who had collected, among other items, a large cordmarked sherd. This latter item was of immediate interest since only one small sherd of this type had been found during the survey of the reservation the previous spring. It was surmised at that time that the cordmarked pottery of the Washita Focus was virtually absent from this area due either to a time difference or lack of contact between the focii. Upon subsequent investigation, the cordmarked pottery site was found to be a part of a large materials pit in current use by the Army engineers as a source of fill material for various construction projects on the reservation.

Location

The borrow pit was located northeast of Key Gate, about 1/4 of a mile east of highway U.S. 277, and about 1/8 of a mile southeast of the bridge which crosses the highway north of the main gate. At this point, Medicine Creek joins East Cache Creek about 1/4 of a mile to the east of U.S. 277. The site itself is on the south bank of Medicine Creek and back from it, at present, about 100 yards.

The Site

The site appears to have extended for approximately 400 yards east-west and perhaps 50 to 100 yards north to south. It was very difficult to visualize the site as it had been buried under 4 to 5 feet of silt resulting from a shift in the creek channel. The occupation which was perhaps about 1 foot thick had been almost completely removed by machinery. What remained were occasional concentrations of hearth stones, blackened areas, and places where mussel shells were exposed. While the occupation area probably extended beyond that uncovered by the engineers' excavation, this could not be exploited due to

the depth of the overburden. However, in one instance, a hearth was excavated in the southeast corner of the borrow pit. This hearth consisted simply of a circular pile of river boulders without a hearth depression and without cultural association. Nothing of significance was learned from this feature.

Excavation

An attempt was made initially to stake the area off into conventional 20 foot grid squares. However, this proved impractical as the routine operation of vehicles and machines continually destroyed the grid system. Consequently, the only solution was to attempt to salvage a representative collection of material to accompany the cordmarked sherd which had been previously found.

First, members of the University of Oklahoma Extension class and, later, the Salvage Project operating with Park Service funds searched the bottom of the borrow pit for signs of hearth and other cultural material which was still imbedded in the pit floor. Excavation was commenced in the vicinity of such finds. As a result, sufficient material was recovered to establish the distinctiveness of this site from the Pig Farm Crossing site a little less than 3 miles to the southeast along East Cache Creek.

Preservation of specimens, especially fragile items, was very poor due to the weight of the excavation machinery and the fact that some of the material had been secondarily deposited by scrapers and bulldozers during the course of their operations. This would have been quite a valuable site had it been located before the borrow operation had reached the occupation level. As it was, no structural features at the site could be recorded. Even most of the existing hearths were residual by the time of the archaeological excavation.

Number	Artifact	Class	Type	Remarks
1	Chopper	Ground Stone		
4	Hammerstone	" "		
6	Handstone	" "		
2	Mano	" "	1	oval shape
7	Mano	" "	2	wedge shape
2	Mano	" "	3	circular shape
1	Metate	" "		fragment
6	Pounder	" "		
1	Polisher	" "		
1	Celt	Chipped Stone		
1	Scraper	" "		
1	Sherd	Pottery	1	cordmarked
5	Sherd	"	2	cordmarked
1	Sherd	"	3	plainware
1	Sherd	"	4	plainware
54	Deer	Bone		
1	Rodent	"		
2	Box turtle	"		
7	Soft-shell turtle	"		
10	Mollusk	Shell	umbo	
25	Mollusk	"		fragments
4	Limestone	Rock		burned
6	Clay	Wattle		burned
16	Chips	Flint		

Fig. 19 - Inventory of Borrow Pit Site, CM-127

Typology

Ground Stone

Chopper (1)

This greyish sandstone rock has one straight edge and a roughly curved back. The straight edge is beveled on both sides and is blunted by percussion wear. One side is slightly smoothed as though secondarily used for polishing; the other side is not. Dimensions: Length, (est.) 16.0 cm.; maximum width, 7.0 cm.; average thickness, 1.5 cm.

Hammerstone (4)

Roundish, heavy, homogeneous rocks of a tan quartz, sandstone, or flint boulders. Variation in maximum dimensions: 8.5 cm. to 9.5 cm.

Mano (11)

Type 1 (1)
Oval-shaped manos with pecked edges of dark sandstone; both faces used for grinding. Grinding faces double faceted with a ridge down the middle of both sides. Dimensions: Length, 13.5 cm.; maximum width, 8.5 cm.; average thickness, 4.2 cm.

Type 2 (3)
Outline is triangular; cross-section is wedge-shaped. One specimen has a rough, concave upper surface with a pecked depression in the center. One side of the mano only was used for grinding. Another specimen had some pecking on its edge especially at its wider and thinner end. This specimen also showed pecking on the upper side as though it was secondarily used as a crushing implement. Dimensions: Length, 14.0 cm. to 14.1 cm.; maximum width, 11.0 cm. to 11.2 cm.; maximum thickness, 3.5 cm. to 5.5 cm.

Type 3 (4)
Heavy, fairly thick, irregular limestone blocks with rough top surface and flat grinding planes on the underside. Blanks were percussion outlines elongated or circular forms and then ground into final shape. Dimensions: Length, 11.5 cm. to 13.0 cm.; width, 8.1 to 9.1 cm.; maximum thickness, 3.2 cm. to 3.5 cm.

Type 4 (4)
Large circular-shaped manos with pecked edges, concave upper surface, flat underside; edges often chipped and may have been secondarily used as choppers. Only one complete specimen. Dimensions: maximum diameter, 15.0 cm.; maximum thickness, 5.5 cm.

Metate (1)

Fragment of a slab type metate made of thin sandstone; rough finished on underside but with a smoothed and pecked upper grinding surface. Thickness, 1.6 cm.

Pounder (6)

Heavy, natural shaped, roundish boulders varying from 11.0 cm. to 16.00 cm. in diameter and from 7.0 cm. to 10.0 cm. in thickness. These are evidently multipurpose, occasional tools. They show a few small grinding facets and are battered on the edges. Seemingly they were used primarily because of their weight and toughness for pounding; secondarily they were used as handstones. Some show more use in one function than the other.

Polisher (1)

Small, fine-grained, turtle-backed river pebble having a very flat under surface which shows polishing from use. Dimensions: Length, 5.5 cm.; width, 4.5 cm., thickness, 2.5 cm.

Chipped Stone

Celt (1)

This specimen is a small, thick, heavy, oval-shaped stone. Percussion work has shaped this stone on all sides but one end. There is a definite rounded bevel to all edges. However, there is no work on the large surfaces of the stone. Possibly this was blank for a celt rather than the tool itself. On the other hand, left unhafted this specimen could have had other functions. Dimensions: Length, 7.6 cm.; width, 4.5 cm.; thickness, 3.2 cm.

Scraper (1)

A roughly rectangular piece of basalt with large, random percussion scars along all sides. Percussion work on both faces along one edge. Held along the unfinished back edge of this implement could have been used either as a flake scraper or a flake knife.

Pottery

Type 1 (1)
Surface: Vertical cordmarking in neck region. Cords dominate pattern; little evidence of knots; average width between ridges .4 cm. to .5 cm.; cordmarking slightly obliterated.
Temper: Bone with prominent grains of limestone and quartz sand.
Color: Tan exterior and interior.
Thickness: .5 cm. near rim; further down on sherd .8 cm.
Affiliation: Initial impression that of Stamper Cordmarked but this type is thicker, of softer paste, and coarser temper.

Type 2 (5)
Surface: Cordmarking; cords almost completely obliterated; fingermarks very definite on interior of these sherds.
Temper: Grains of sandstone and limestone prominent; also some bone temper.
Color: Lighter than Type 1; one specimen burned black inside and out.
Thickness: .8 cm. to 1.1 cm. Thicker softer paste than Type 4.
Affiliation: Initial impression that of Safford Cordmarked. But this type differs from that of Washita River Focus in that paste is not so thick, coarse, or hard. This temper is of finer, more homogeneous type.

Type 3 (1)
Surface: Plainware, exterior bumpy and slightly sandy to touch; interior slightly porous appearance; quartz grains on surface glitter in light.
Temper: Small quartz grains and some bone temper; fine sand.
Color: Grey splotched with black.
Thickness: .5 cm. to .8 cm.
Affiliation: Not a Caddoan type of smooth surface. This undulating, bumpy surface is distinctive.

Type 4 (1)
Surface: Plainware; surface flat but not polished.
Temper: Large rock grains and some bone; light "feel" to sherd.
Color: Dark tan with dark splotches; interior black.
Thickness: .6 cm. to .7 cm.
Affiliation: Not early Caddoan type because of coarse temper. This type is thinner than Lindsay Plain of the Washita Focus and thicker than the Stamper plainware of the Optima Focus.

Bone (64)

The majority of the bone found was well-cracked deer bone. No buffalo bone was found at this site. In addition to deer bone, box turtle, soft-shelled turtle, catfish, and rodent remains were found.

Shell (35)

In comparing this site to other sites on the military reservation, it is found that shell occurred fairly abundantly. The quantity listed in the inventory (Fig.19) does not represent the total noted. A considerable number of very small pieces had been crushed and scattered about the borrow pit. The shell appears to be native mollusk of 2 types and similar to that found at the Pig Farm Crossing Site.

Wattle

Five burned pieces of clay were found in lumps oxidized to a brick red color. They were made of a very sandy clay containing a heavy temper of minute quartz grains similar to that described in the temper of pottery Type 3. The impressions of small sticks and reeds were visible. On some specimens, flat surfaces were noted indicating that the clay had been pressed against poles. Thickness of the pieces varies from 1.0 cm. to 2.0 cm.

Lithic Debris

The relatively small amount of lithic debris found represented types previously described. (Shaeffer 1960b:). They are listed as follows:

Quartzite	1
Porphortic	1
Basalt	1
Flint, Alibates	1
Flint, Type 2	2
Flint, Type 5	8
Flint, Type 6	1
Flint, Type 9	1
Flint, Type 12	1
Flint, Type 17	2
	19

Rocks

A few limestone rocks 5.0 cm. to 6.0 cm., in maximum dimensions were found. These were fire-blackened and thermal-fractured. They evidently represented the remains of hearths or cooking pits similar to those found at the Pig Farm Crossing Site.

THE BOUNDARY SITE, CM-128

Background

This site was located by James Marler, Assistant Director of the U. S. Army Artillery and Guided Missile Center Museum, during a week-end archaeological exploration on the reservation during the spring of 1960. This site was not investigated, however, until the summer of 1960. Assisting in the subsurface testing were those persons who had been in the spring archaeological class of the University of Oklahoma Extension Division.

Location

This site was exposed as a result of the cutting of a firebreak along the north boundary fence of the Fort Sill Military Reservation. At the upper end of Crater Creek there are a number of intermittent streams which have their rise in the area north and northwest of the Cross Mountains which are southeast of Quannah Parker Lake. The site is on the south bank of one of those tributaries which skirt the north edge of Mount McKinley. This area is fairly rocky, but there is a narrow flood plain on either side of the stream bed. The latter is bordered by a series of small washes with steep banks. The site is located on the top of one of the rises formed by 2 of these north-south drainages entering the stream. The occupation is about 50 yards north of the creek bank. At present the boundary fence intervenes between the site and the stream bank.

The Site

The site was quite shallow due to its exposed position on the knoll. The fire trail which extended over this knoll and down the other side was about 60 feet wide. Most of the site material, burned rock and a few animal bones, had been pushed aside by a road patrol. Efforts were made to locate the occupation area more fully but the toughness of the clay and the shallowness of the site prevented the uncovering of any structural features.

Excavation

A number of test pits were dug but except for the finding of several buffalo bones and miscellaneous flint chips, little was uncovered by this method. Most of the material reported upon was recovered from the surface and from explorations in the row of dirt left by the road machinery. About 10 persons were involved in the excavation to which 6 hours were devoted. At the end of that period, the results had become negative and further investigation was deemed fruitless.

No.	Artifact	Class	Type
1	Chopper	Chipped Stone	
1	Knife	" "	
1	Projectile Point	" "	
1	Scraper	" "	1
1	Scraper	" "	2
3	Handstone	Ground Stone	
1	Hammerstone	" "	1
3	Mano	" "	1
1	Mano	" "	2
1	Crystal	Quartz	
38	Chips	Lithic Debris	

Fig. 20 - Artifact Inventory, Cm-128

Topology

Chipped Stone

Chopper (1) Fig. 21 (10)

Circular disc of porphoritic rhyolite from a nearby outcrop. The back or grasping area has been left with the natural crust intact. Unifacial percussion chipping occurs on the edge of a semi-circular portion of the disc. There is secondary use chipping resulting from chopping action on the opposite face. This is a lighter, smaller type than found in the Lawton Aspect but it is generally similar. Dimensions: 9.5 cm.; thickness 2.6 cm. to 3.8 cm.

Knife (1) Fig. 21 (4)

Curved knife similar to that described for the Lawton Aspect. (Shaeffer 1960b: 195). The material is quartzite with all-over percussion work on both sides; some secondary chipping on the curved blade. The point is missing but estimated length, 7.0 cm.; maximum width, 3.4 cm.; maximum thickness, 1.0 cm.

Handstone (3) Fig. 21 (5)

Natural circular boulders which are flattened on one side and turtle-backed on the other. Edges are quite battered and some of the under surface shows wear from grinding. These appear to have been random selected implements whose primary function was possibly pounding and crushing and whose secondary and incidental use was grinding. Diameters run from

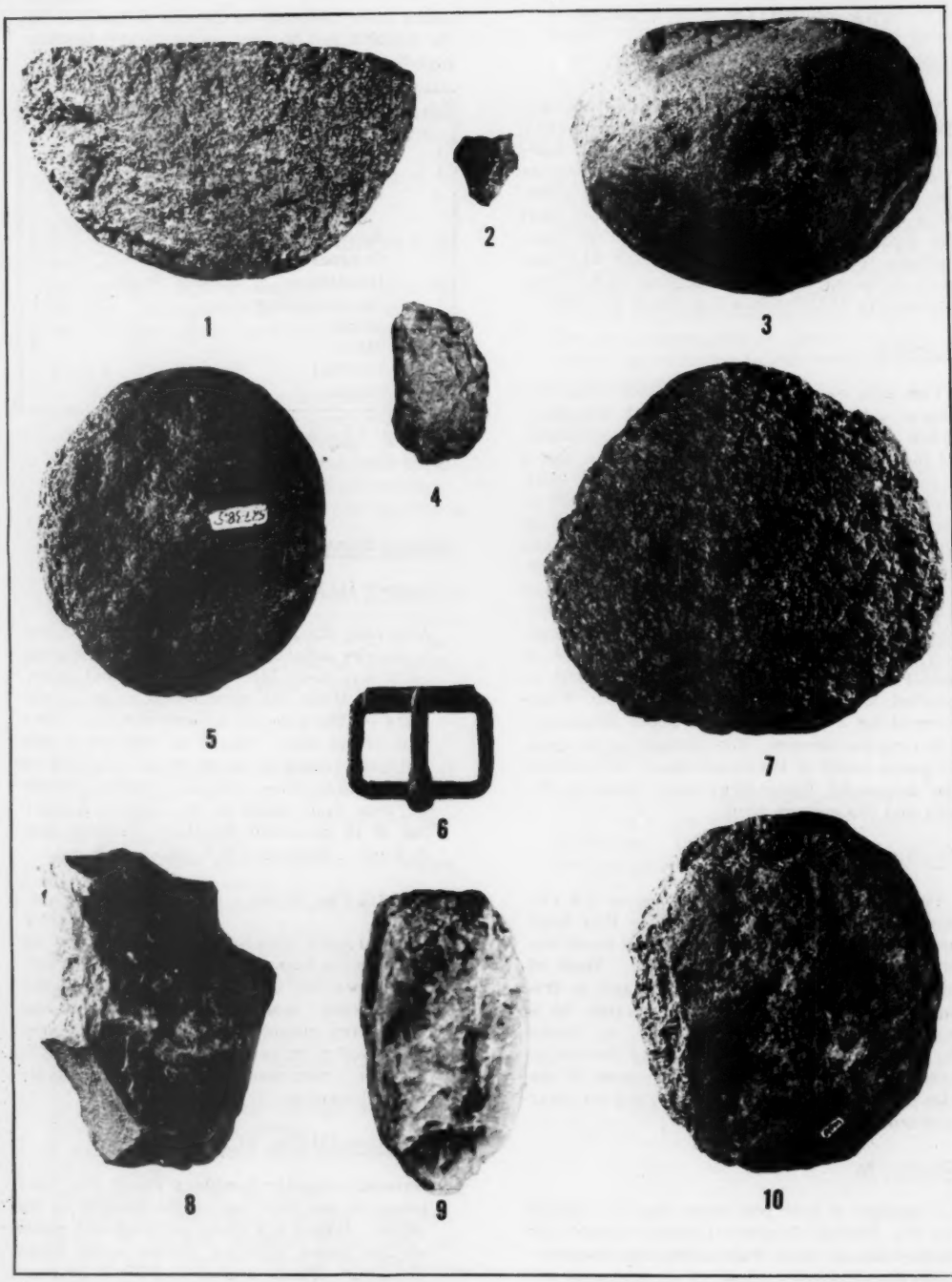

Fig. 21 - Artifacts Cm-128. (1) Mano, Type 2a (2) Gary Point Base (3) Mano, Type 1 (4) Quartzite Knife Fragment (5) Handstone (7) Mano, Type 2B (8) Scraper, Type 1 (9) Scraper, Type 2 (10) Chopper, Blade Facing Left (6) Harness Buckle, Cm-118.

from 8.5 cm. to 10.0 cm.

Hammerstone (1)

A roundish quartz pebble with battered corners. Maximum dimensions on specimens 7.0 cm. to 6.5 cm.

Mano (4)

Type 1 - Fig. 21 (3)
Oval-shaped sandstone river boulders; flat on one side and turtle-backed on the upper side with a small pecked depression in the center of the convex back. The grinding or flat side shows some polish;but where there are places resulting from grinding action, these planes appear to have the natural crust intact. The concave side shows considerable battering and despite the mano-like shape, the main function has been crushing by pressure with grinding a secondary function. The edges at one end are battered. Apparently the tool was multi-purpose. Dimensions: Length, 12.3 cm. to 8.6 cm.; thickness at end, 4.4 cm.; thickness at center, 5.8 cm.

Type 2 - Fig. 21 (1)
(a) Fragments; same general shape as Type 1 but definite grinding plane on lower, under surfaces; oval and ground; convex upper surface; few battered edges. In this case, the primary function was grinding; the secondary function crushing. This type of mano was neither as heavy nor as thick as Type 1. Dimensions: Length, ? cm.; width at end, 10.1 cm.; maximum thickness, 4.4 cm.
(b) Natural shaped river stone with under surface smoothed and flat from grinding; one edge battered; profile wedge-shaped; similar to Type 2 but less symmetrical due to less shaping. Dimensions: Length, 10.0 cm.; width, 9.1 cm.; thickness, 5.5 cm. to 6.0 cm.

Projectile Point (1) Fig. 21 (2)

Fragments of a base made of Type 27 basalt (Shaeffer 1960b: 60). This rock has a very distinctive,granular,red sandstone intrusion which stands out from the dark background. Base appears to be that of a small Gary dart point; contracting rounded stem; stem short probably less than 1/4 of length of the total point; workmanship crude. Dimensions: Length ? cm.; width at shoulders, 2.2 cm.; maximum thickness, .9 cm.

Scraper (2)

Type 1 - Fig. 21 (8)
These are large heavy pieces of quartzite with the underside flat and the upper side turtle-backed with crust intact. Edges have been knocked off by single blows around the perimeter of the elongated shape. Secondary use chipping occurs on the convex edges of the 2 most pronounced curves. Dimensions: length, 11.0 cm.; maximum width, 8.6 cm.; average thickness, 3.4 cm. to 4.5 cm.

Type 2 - Fig. 21 (9)
Turtle-back piece of quartz; flat on underside with almost straight sides. This specimen has been worked into an oval form with one end straight across the face showing secondary chipping. Similar in form though much smaller than scraper-planes of Lawton Aspect. (Shaeffer 1960b: 201).

Quartz Crystal (1)

A local type found weathering on prominences in the western part of the military reservation, especially on upper Post Oak Creek.

Lithic Debris

All flint chips, except for Flint Type 2, are opaque types of flint as opposed to the dominence of translucent flint at Pig Farm Crossing and the Borrow Pit sites. Presumably, these opaque flints could be local to the extent of occurring commonly in river gravels. Quartz, quartzite, and basalt are also stronger in the western than the eastern part of the reservation.

Basalt	3
Quartzite	6
Quartz	11
Flint, type 2	6
Flint, type 22	1
Flint, type 23	4
Flint, type 27	4
Flint, type 28	3
	38

Fig. 22 - Summary of Lithic Debris, CM-128

Bone

Three cracked joints of buffalo tibia and fibula were found. No other bone of any sort occurred even in fragmentary form.

MEDICINE CREEK FLAT SITE, CM-118

Background

This site was located during the initial survey of the Fort Sill Military Reservation in the spring of 1959. At that time, it was recognized as the longest site which had been located. Material was exposed for at least a mile on the flat along the north bank of Medicine Creek. It was supposed at that time that the material was from a Plains Indian campsite. (Shaeffer 1960b: 114).

Location

At the time of the 1959 survey, material was exposed in a truck trail which paralleled the edge of the second terrace along Medicine Creek. This road which was used by military vehicles on maneuvers was quite irregular and rough, and as a result, a considerable amount of material was collected in the roadway, especially toward the west end of the large field which the road bordered. At the location of the site, in the middle of the east-west length of the field, the stream is within 50 feet of the upper bank while at the extreme ends of the site, the stream is perhaps 100 feet to the south. The lower bank or first terrace is thickly covered with vegatation interspersed with larger trees, especially oaks which in summer give good shade. However, the lower bank is often marshy and rocky, due to flooding, and is therefore not too suitable for a village location.

The Site

In 1959, the site material occurred along the road and ended just beyond the small airstrip which was located to the north of the truck trail and a main gravelled road. However, upon returning to the site in the summer of 1960, it was found that much of the winding truck trail had been replaced by a 60 foot wide fire break which had been bulldozed to a depth of several inches below the tall grass which normally covered the field. A swath had been cut through the grassed area which comprised the large flat to the north of the trail. This bulldozing had completely removed all the loose material which had formerly been in the road section. Even in the parts of the road which remained, there was little evidence of site material. Presumably, this was due to rain action during the intervening period.

It was also difficult to find material by testing in the cleared field. Therefore, it must be assumed that the material was spread very thinly over the area, despite the extent of the occupation. The previously found material probably represented a concentration and accumulation of material which was originally more widespread. Despite considerable testing, it was not possible to establish any particular area as the center of the habitation. One may suppose then that an irregular pattern of dwellings was arranged periodically in this location. To locate such a diffuse area of occupation would have required more time and manpower than was available.

Excavation

Since both sufficient time and heavy equipment were lacking, a survey of the fire break was made to ascertain a center of occupation. This proved fruitless due to the shallowness of the site. Such material as had existed had been piled in ridges along the south side of the road by the bulldozer. Very little lithic debris was apparent except for porphoritic rhyolite boulders which were either parts of hearths, tipi rings, or in many cases, undifferentiated pounding and mulling tools. Several concentrations of these boulders still remained in the fire break. It was decided to expose these more fully to determine whether any pattern could be discovered in their arrangement.

Cultural Associations

Several days were spent uncovering the river stone feature subsequently described. During the course of this excavation, only 5 items were found among the boulders. These consisted of 2 pieces of quartzite, one of which showed percussion flaking, a small harness buckle, a "minnie" ball, and a .30 caliber bullet. (Fig. 21 (6). It is not possible because of the shallowness of the site and the previous bulldozing to say whether these items were definitely associated with the feature in which they were found.

Rock Feature

As indicated by the accompanying photographs and plan, the feature consisted of a single layer of river rock formed in an irregular pattern. This pattern vaguely suggests an anthropomorphic form which had been previously disturbed. On the other hand, this may be an erroneous interpretation. Towards the center of the area, the stone stratum thickened and more than a single layer was found. In the center of the concentration, as the profile indicates, there was a stone-filled depression. The rock in this immediate area was darkened and oxidized by firing. It is assumed the depression represented a hearth.

It should be noted that around the outside of the stone concentration, there is an irregular pattern of widely spaced stones. This is similar to the plan later excavated at the Archery Range site, CM-41. Since the outside dimensions of the area are 10 x 13 feet and the general appearance is similar, it may be that the stone concentrations represent the interior area of a structure having a central hearth. In this case, the outside stones might be bases or supports near wall posts and the remaining stones part of a floor arrangement. On the other hand, they might be simply a result of the accumulative pulling of hearth stones from the fire over a long period. In any event, the stone concentrations such as these are man-made. They occur with sufficient frequency to suggest a cultural trait. Their exact function remains to be determined by the uncovering of additional examples which are less disturbed.

ARCHERY RANGE SITE, CM-41

Background

This site, found during the 1959 survey by the discovery of shell, flint chips, and bone working out of a very eroded truck trail, is located southwest of Hands Hill on a second terrace opposite Medicine Bluffs. A child's femur was also found nearby at a depth of several feet in the profile of a subterranean tank park less than 100 feet to the southwest of the site.

Location

The site extends along a small tributary on the north bank of Medicine Creek about opposite Medicine Bluff #2. In terms of the topography of the north bank, the site lies a few hundred feet to the southwest of Hands Hill, the dominating feature of the terrain. The ground slopes rapidly away from Hands Hill forming a relatively flat area at its base to the south. A slight tilt to the southwest connects this area with a small, well-wooded drainage which flows into Medicine Creek. There is surface evidence of occupation on both banks of the drainage just outside the wooded area. The west bank on which the site is located is now back from the dry drainage about 50 feet and at a point about 1/4 of a mile north of Medicine Creek.

The Site

Upon return to the site in 1960, it was found to be heavily overgrown. At this time, there was little material on the surface due, no doubt, to rains which had washed the ground clean during the interval. Again, as at the Medicine Creek Flat site, little debris was found within the area excavation. The latter centered in the middle of the truck trail at a point where the material of the previous spring had been collected from the surface. (Shaeffer 1960b: 103).

Cultural Association

Several days were spent at this site in uncovering the stone concentration. During this time, a few items were found deposited among the top stones. However, these were limited to 2 items of White culture, a coil of bailing wire, and a rusted metal fragment. In addition, a dozen or so pieces of charcoal were recovered.

Rock Feature

As indicated on the accompanying plan (Fig. 23A) the dimensions of the rock concentration of river boulders was approximately 13 by 18 feet. In form it was somewhat similar to the feature uncovered at Medicine Creek Flat. However, the feature at this site differed mainly in the absence of a central depression. Instead, 2 or more layers of stone were concentrated in the 4 areas indicated on the plan. Again an intermittent and widely spaced perimeter of stones was found within a foot or two of the stone concentration. The purpose of this stone boulder feature remains enigmatic. Due to the lack of cultural association and the fact that both areas are used for maneuvers, it may be that despite the Indian material in the immediate vicinity on the surface, the rock features described may be elements of white rather than Indian culture. This is a point which requires further clarification.

MEDICINE BLUFF FIVE SITE, CM-45

Background

When this site was located during the 1959 survey and was found to cover a large area with an extensive distribution of material showing on the surface, it was thought to be a Plains campsite. (Shaeffer 1960b: 104). However, it was recognized at the time that excavation would be difficult not only because of the shallowness of the site, but because of the unusual amount of disturbance caused by troops who had repeatedly bivouaced in the area, leaving behind such mementos as unfilled latrines, foxholes, and other entrenchments.

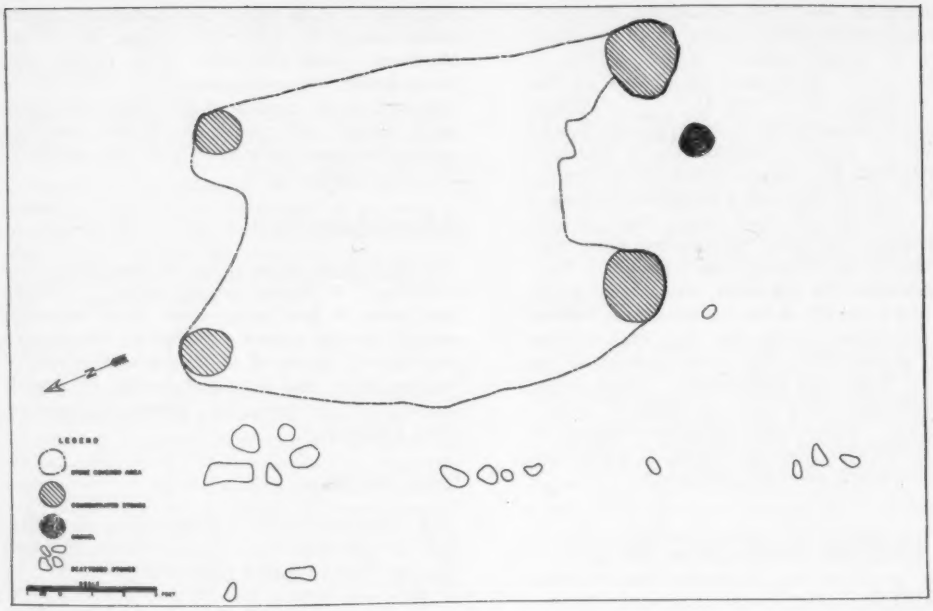

Fig. 23, A - Stone Pattern, Archery Range Site, Cm-41

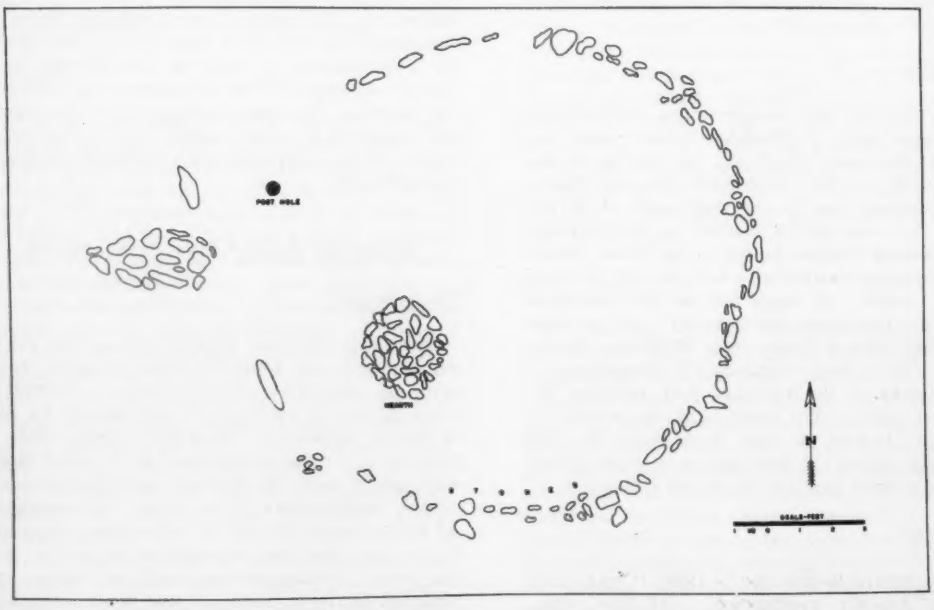

Fig. 23, B - Stone Circle, Medicine Bluff Site, Cm-45

Location

The site is located on the south bank of Medicine Creek just northwest of the end of the Medicine Bluffs, the most prominent terrain feature of this part of the reservation. Medicine Bluff #5 lies just behind the camp area. From these residual bluffs, the ground slopes rapidly towards the north. The site is located at a point where the slope becomes less acute and the woods are somewhat thinner than on the higher ground above. In extent the occupation area is perhaps 100 feet north to south and 200 feet east to west. Beyond the area of occupation there is a drop to the first terrace of Medicine Creek which lies about 1/4 of a mile to the north.

The Site

Occupational debris lies scattered on a badly eroded slope. Though this material is quite apparent on open eroded spots, it is also evident that the site is quite shallow. It seems therefore that erosion has concentrated the scattered material from the higher ground above the eroded areas. The site lies between 2 local drainages which are about 300 feet apart. These mark the east-west boundaries of the site. Though there are a number of stones lying about which suggest the remains of hearths and structure, most of these features are in a very poor state of preservation. However, several better preserved features lie on small hillocks bordering the drainage on the west edge of the site.

House Pattern

The house ring indicated on the plan (Fig. 23B) is approximately 30 feet in diameter. It was in a very good state of preservation except for the floor area. This was not compacted and could not be followed. Only one bona fide post hole was found. This occurred near the entrance which was presumably the break in the ring opening to the west. Off to one side and within the circle was a concentration of flat rocks which could have been the house hearth, though it consisted of a single to double layer of rock without any depression. In passing, it might be noted that this type of hearth is quite common especially in the eastern section of the reservation whereas the boulder type described for the Archery Range and Medicine Creek Flat sites is less commonly seen exposed in the east.

Outside the ring there was another rock concentration similar to that on the inside of the circle. It might be that these 2 features were not contemporaneous with the house ring, but were of later construction . Part of a similar ring was located about 20 feet away to the northeast on another small hillock which partially was washed away. This feature was too eroded for excavation.

Site Material

Unfortunately, no associated artifacts were found within the house ring or on the outside within the immediate vicinity due to the slope of ground in all directions, but a number of points and point fragments were found on the site. The nearest finds were located by test pitting at the edge of the nearby truck trail about 50 feet to the southeast. Here several small side-notched points of the Washita focus were found as well as those of the Fresno type and a small quartz end scraper. Lithic chips are of the following types: quartzite, basalt, flint Types 5, 6, 9, 10, 17, 18, 19, 22, and 28. One copper carbine shell was found bearing the mark S.A.E. and the number 79 (for 1879?) along the rim.

TEMPORAL AND CULTURAL RELATIONS

Pig Farm Crossing Site, CM-26

At the present time, it is difficult to place this site culturally. While there are many characteristics held in common between this site and those of the nearby Washita River complex to the north, the Pig Farm Crossing site appears to represent a differing tradition despite superficial resemblances.

The site location is much closer to the stream than is common in sites of the Washita River focus; it lacks the characteristic debris of the later type of site. Also missing are the numerous circular storage and refuse pits, as well as evidence of square or rectangular dwellings. In the artifact assemblage the main lack is the great range and abundance of buffalo bone tools always present on Washita River sites. Especially lacking is the characteristic scapula hoe; and this, despite a fairly heavy occurrence of buffalo bone at the site. Another marked and major absence is cordmarked pottery. Minor absences are pottery discs, figurine remains, house wattle, and an abundance of flint side scrapers. In fact, chipped debris is relatively rare.

On the positive side, common characteristics with the Washita River focus are the considerable amount of buffalo bone and mussel shell food remains, a similar range of scraper forms, and roughly similar range of projectile point types.

There are some distinctive traits which appear at the site which cannot be specifically tied in distributionally at the present time, though one might suspect the general direction of their sources. For instance, the beveled trapezoidal knife is identical in form and material (Alibates flint) to one excavated at the Optima focus of the Oklahoma Panhandle (Watson 1950: 4). It is possible that the thin, 2 sided manos and the basally retouched Washita River type of point are similar in form and material to some found on Medicine Creek and at the Carter site, BK-6; the serrated type of Fresno point, and mica pottery temper are also from a northwestern or southwestern direction. On the other hand, the adze (or single-bitted axe) might, on the basis of material, come from a more easterly source. Certainly punctate-decorated and shell-leached pottery is more at home in eastern Oklahoma. In short, none of the site's distinctive traits can be tied in specifically to other sources outside of the area though they are obviously intrusive in form, material, and numbers.

On the other hand, the site's major complex traits of architecture, pottery, and bone tools do not tie into those of the nearby Washita River complex, even in a generalized way. In view of the very well defined traits of the Washita River focus, and the fact that these are lacking at this site, it must be assumed, especially with the absence of cordmarked pottery, that either a time difference, a culture-tradition difference, or both is involved. If, at some other site of this type, a few cordmarked sherds of the Stafford variety show up, then we may establish a contemporaneity which the evidence at this site refutes. In either case, the basic differences of architecture, pottery, and tool type would remain. So the choice is whether the differences are to be explained on the basis of time and a changing Washita River culture, or differing tradition entering the region. In view of the very few sites having cordmarked pottery on them (we found only one out of 123 sites in our Ft. Sill survey, (Shaeffer 1960b) the hypothesis of gradual change has no supporting evidence locally. Therefore, we are left with the conclusion that a different cultural tradition is involved despite some superficial similarities, most of an ecological sort. The other question which remains is whether the Washita River focus and this Upper Red River focus were contemporary. While, as it has been indicated, the lack of intrusive Lindsay cordmarked pottery suggests that they were not, still this is only the first site of this type reported on and further excavation may change the picture. However, for the present and on the basis of this single site, this Upper Red River focus appears to have entered the Wichita Mountain area via East Cache Creek at a later period.

In view of the above reasoning, the reconstruction which is postulated is that the Pig Farm Crossing site represents a slightly later time period than sites of the Washita River focus and a cultural affiliation basically eastern with some southwestern connections as opposed to the basically northerly and western affiliations of the Washita River focus. Whether this places the Pig Farm Crossing site at the beginning of the historic 18th century Wichita occupation of the Ft. Sill area is doubtful. It would seem more likely that this might represent an earlier 16th to 18th century Caddoan occupation. This reconstruction is, however, mere supposition. Considerably more fieldwork needs to be done in building up a better inventory of traits than now exists in the Oklahoma and Texas literature of the Red River Valley archaeology.

Borrow Pit Site CM-27

While this site is located within a few miles of the previous site at Pig Farm Crossing, it is not closely related culturally. This site differs from the latter in the following respects. At this site, no bison bone was present, either as a tool material or as food remains. Deer was the principle source of animal bone. Mussel shell was more abundant than at the other site, as were manos and handstones, while cordmarked pottery rather than plainware predominated. Wattle was also present, suggesting the usual wattle, daub, and thatch structure of the north which was rectangular in shape.

Except for the lack of bison bone, the above traits suggest affinities with the central Plains type of culture to the north, especially that of the Custer focus. The chief differences are the absence of such items as chipped tools.

From the above, it would appear, even from the minimal material obtained by this salvage operation, that the Borrow Pit and Pig Farm Crossing sites represent culturally differing traditions. The latter as previously indicated, on the basis of its pottery and architecture, is probably eastern in origin and of a late date. The affiliations of the Borrow Pit site present a greater problem, not simply because of the inadequacy of the sample, but because of the difficulties arising from the definition of the Custer and Washita focii as they have been developed the past few years through the addition of reported sites. In this writer's view, the

problem, instead of becoming clarified, has become increasingly obscure.

We now have 11 reported sites ascribed to these manifestations, the sole common denominator being cordmarked pottery of various sorts. For the present, these sites cannot be seriated on any one basis without creating interpretive problems when the seried sites are considered as a whole. For example, in the present case, the Borrow Pit site, despite its otherwise Southern Plains Aspect characteristics, lacks any indication, even fragmentary, of bison bone. One might explain this situation as caused by the disturbed condition of the borrow pit due to machine operations were it not for the fact that this negative aspect of cultural inventory is duplicated at the Van Schuyver site (Sharrock 1959: 34-40) in Pottowatomie County, over 100 miles to the northeast. At this latter site, mussel shell food remains also were abundant, as they were at the Borrow Pit site. These sites were also similar in most respects, except for tempering in the pottery which appears to differ at the 2 locations.

It is not the purpose of this discussion to analyze the larger problems involved, but merely to point out that the Borrow Pit parallels a site previously described but so far removed from it geographically that, in the present state of our investigations, the similarities are difficult to explain in terms of the existing taxonomy. In regard to the taxonomy, either the time-scale which has been alloted for the development of the Custer and Washita focii is too conservative or the taxonomic framework is too simplified to accommodate all the variations in the pattern which are developing. In short, the difficulties surrounding the taxonomic assignment of these sites in the Ft. Sill area reveal a need for reconsideration of the previous definitions of the Southern Plains focii and for additional thought to be given to the general problem of Plains-Caddoan relationships in Central Oklahoma.

Boundary Site, CM-28

The main characteristic of the tool assemblage from this site is the crudity of the workmanship. While there are a number of handstones of hard pink porphoritic rhyolite, there are no soft sandstone manos of the type found at the Pig Farm Crossing and Borrow Pit sites. The tools from this site are more amorphous in form, and grinding planes are less pronounced. These are multi-purpose tools battered by use as pounders and hammerstones.

The only projectile point is a base of the Gary dart type and a fragment of a very early type knife found at the Nall site (Baker, et al 1957) in the Oklahoma Panhandle and on middle phase sites of the Lawton Aspect. The one end-scraper found has steep sides in the Lawton Aspect tradition but as indicated by its small size, is of a later type.

Altogether, this assemblage is not comparable with others in the literature. The only clue we have to its temporal position, aside from the fact that it is earlier than the 2 previously-described sites because it lacks pottery, is the distinguishable type of material from which the dart point is fashioned. This is a dark, basalt-like flint with very prominent reddish sandstone inclusions. In the 1959 survey, this was designated as Stone Type 27. Its occurrence was limited to Site 69 on Blue Beaver Creek and to Site 83 on West Cache Creek. All these sites including the Boundary site are located in the central part of the reservation. At the other 2 sites small darts were also the characteristic projectile point types. It was mainly on the basis of the dart distribution at Sites 69 and 83 that both were assigned to Phase 2 (11-1200 A.D.) and Phase 3 (12-1300 A.D.). This is the period when the small dart point was coming into the Wichita Mountain area in Phase 2 and when it was just beginning to be supplanted by the bow in Phase 3. Thus though the evidence is thin, still it is distinctive. Since the combination of point type and tool material is repeated on other nearby sites, it would indicate that the Boundary site is contemporaneous with them and should be assigned to the same temporal position between 11-1300 A.D.

Medicine Creek Flat Site, CM-118

Despite the fact that no cultural associations were found in 1959 during the course of excavating the stone structure, on the basis of material collected during the 1959 survey from this site, a temporal position is assignable. Based mainly on the fact that dart point types are absent from this site and that the Fresno type of simple triangular point is characteristically present, the main occupation of the site was assigned to Phase 3 (guess dates 12-1300 A.D.) and Phase 4 (guess dates 13-1500 A.D.). In addition, there was a scattering of material from several historic phases.

The unresolved question is whether the stone structure is associated with the prehistoric or the historic phases. This, of course, is not determinable on the basis of cultural associations found as the result of

excavation. This important point therefore remains to be answered by further excavation at other points on the reservation.

Archery Range Site, CM-41

At both this site and the Medicine Creek Flat site we find the same situation - a combination of historic and prehistoric materials, a dearth of associated cultural materials, and an inability to determine definitely to what phase the structures should be assigned. The structures at both sites are comparable in size and in the occurrence of possible post molds around the peripheries of the stone concentrations. The only marked differences are the definite fire-pit present at Medicine Creek and its absence at the Archery Range as well as the occurrence of possible post bases in the corners of the Archery Range structure and their absence at the Medicine Creek site.

On the basis of the original surface survey, the following material was recovered from the Archery Range site: Glass, Type 2 (1), fragment of child's femur (1), Flint Type 25 (2), quartzite (1), and shell (10). The only other site where this particular flint type occurs is at the Medicine Creek Flat site where all chips found were of this type. Since, in addition, the only items found at the Archery Range site during excavation above the stones and within a few inches of the surface were a coil of bailing wire and some metal (possibly can) fragments, it would seem possible that both structures were of the historic period, either Phase 7, the early reservation period of Plains tribe occupancy (1880-1895) or the later Phase 8 period (1895-1917) representing occupancy by the Chiricahua Apache prisoners-of-war. At the Archery Range site, material of the historic period in the excavation suggests that the focus of the prehistoric occupancy remains to be located. The present inclination, therefore, is to regard both structures as intrusive in what otherwise are prehistoric sites and to assign them to the historic period leaving in abeyance the matter of the originators -whether they were Plains tribes, southeastern Apaches, or white, either civilian or military.

Medicine Bluff Site CM-45

Despite the obvious use of this area for military bivouac, almost no European material was recovered during the earlier survey of this site. In general, the material was quite consistent- a Fresno type point and fragment of other small points, a small end scraper, several manos or handstones of porphoritic rhyolite and a Type 13 flint, which also occurs on other small point sites. On the basis of the above characteristics the site was assigned at the time of survey to Phase 4 (guess date 12-1500 A.D.).

The presence of the circular structure excavated at this site does present a problem as to whether it was intrusive (i.e., historic) in the prehistoric occupancy. This is suggested by the rest of the cultural inventory. Pottery, for example, was not found at this site, though it should be found in time. Another absence was buffalo bone. But then no bone fragments of any kind were seen on the surface, due probably to the shallowness of the site and its location on a badly eroded slope. On the other hand, a parallel between this site and, say, the Pig Farm Crossing site is the absence of quartzite on both sites even though it is very common in both areas on nearby sites. The connection with the latter site is seen further in the fact that at the time of the survey, stone rings were noted at the Medicine Bluff site, but no circular house plan was visible at the Pig Farm Crossing site. Yet on the basis of the cultural inventory, both were assigned to the same Phase 4 (guess dates 13-1500 A.D.). The uncovering of a circular house plan at the Pig Farm Crossing site, albeit much larger, does seem to strengthen this original prognosis.

Therefore, it is felt that this site is in the same tradition as the Pig Farm Crossing site, though possibly somewhat earlier, and that both represent, at least in terms of nonstructural inventory, the Caddoan or Wichita occupancy. However, as regards the circular house plan, this conclusion can only be tentatively applied because the known early historic occupancy of the region by the Comanche has yet to be archaeologically defined.

CONCLUSIONS

Using the phase outline which was developed to tentatively organize the results of the 1959 survey, a summary of the present excavations show that they covered Phase 2(11-1200 A.D.) and Phase 3 (12-1300 A.D.) at the Boundary site; Phase 3 and 4 (13-1500 A.D.) at the Medicine Creek Flat site; Phase 4 at the Pig Farm Crossing and Medicine Bluff 5 sites; and Phase 7 (1880-1895 A.D.) and Phase 8 (1895-1917) at the Archery Range and Medicine Flat sites; that new phases have been added to the chronology; and the Phase 5 - Phase 6 (15-1870; 1870-1880 A.D.) "gap" which existed in the original chronology still remains.

While it would be profitable to review this latter problem in detail, it would require such a lengthy re-analysis of both the 1959 survey material and the 1960 excavations that it could not be included here. Suffice it to say for the purposes of this paper, that it now appears likely, that the "missing" Phases 5 and 6 undoubtedly result from the incorporation under Phases 4, and possibly 7, of material from an intermediate time period. It is now felt, in light of the excavations, that material designated under Phase 4, is Caddoan but that more time was involved in this development than has been assigned heretofore. Possibly a cordmarked phase precedes Phase 3, or is contemporary with it. Most of the Caddoan material may fall within the 14-1600 A. D. period. The difficulty which besets any such interpretation of chipped tools arises from their occurrence on so many sites despite the fact that the literature does not record such material for the early contact period. Were the Wichitas using flint tools and weapons in the 16th and 17th centuries, or were they using them as late as the middle 19th century? The historical record does not answer either question definitely.

The only point which does seem clear is that the reservation appears to be divided into 2 fairly definite east-west complexes. There is the East Cache Creek-Medicine Creek area of sites characterized by the occurrence of shell, small points, hematite, occasional pottery, and dominance of non-local flint as a tool material. In the western portion of the reservation, the Blue Beaver-Crater-West Cache-Post Oak Creek area is characterized by the absence of shell and pottery and the presence of large projectile points, the common use of quartz, quartzites, and local river-source flints. It might be added, and this is merely suggested as an alternative hypothesis, that the western complex beginning in Phase 3, represents the Comanche occupation and that the eastern complex may be Wichita. Now, of course, there is some overlapping of these sites in both areas; and in the east, the occurrence of the western type site might, under this hypothesis, be assumed to be later and to represent the "missing" sites of Phase 5 and 6. However, this would imply that the Comanche occupation could be traced to an earlier period since the type of western and central Oklahoma tool material seems to grade into Phase 2, which is material related to the Lawton Aspect. While the historical record is not clear on the point as to the precedence of the 2 tribes, it is clear that both occupied the region at the time of contact and subsequently. The question remaining to be answered is how far back does this symbiotic pattern of ecological exploitation of the Wichita Mountain area go?

Considerable work will have to be done in the Ft. Sill area, and some C 14 dates obtained to test the relative age of the western and eastern complexes in order to determine whether they represent successive or contemporaneous developments. It might be wise to point out that we are now just beginning to define the content of the phases in the Ft. Sill chronology. The recognition of this latter problem would seem to be the most important result of the present investigations.

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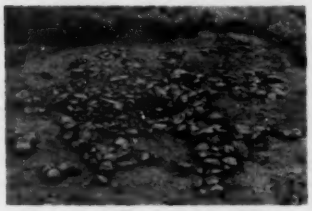

Fig. 24, A - Stone Pattern, Cm-118 General View

Fig. 24, B - Stone Pattern, Cm-118 Hearth Area

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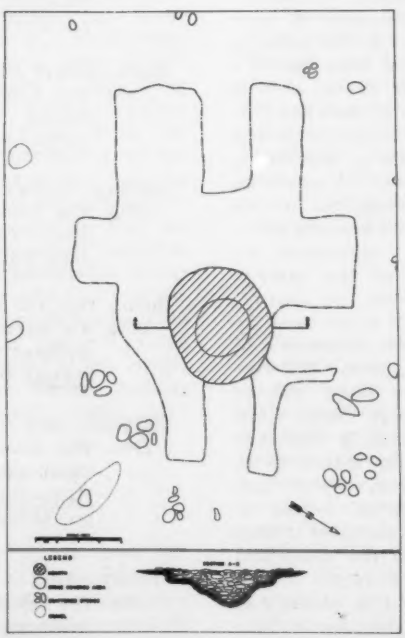

Fig. 24, C - Stone Pattern, Cm-118, Scaled Sketch

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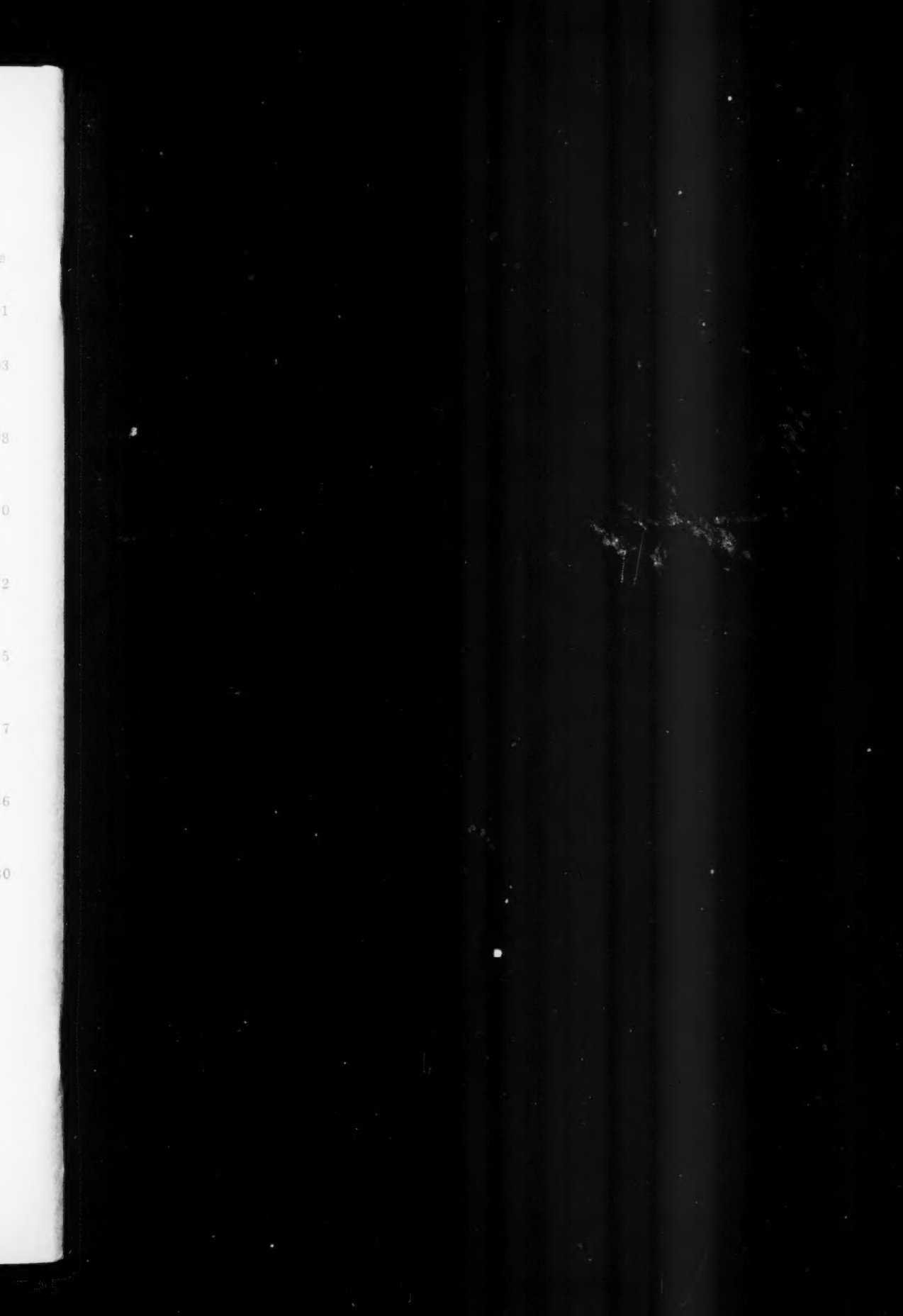
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